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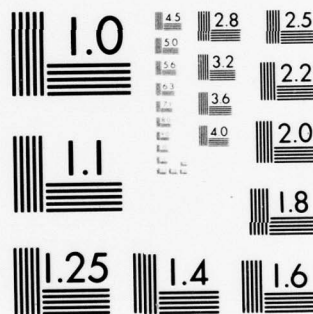
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A SEARCH FOR WAYS TO IMPROVE THE
SUPERVISION OF OPERATIVE EMPLOYEES

THESIS

GSM/SM/78S-2

Robert E. Bolinger
Captain USAF

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AFIT/GSM/SM/78S-2

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A SEARCH FOR WAYS TO IMPROVE THE
SUPERVISION OF OPERATIVE EMPLOYEES .

THESIS

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Master's thesis,

Presented to the Faculty of the School of Engineering
of the Air Force Institute of Technology
Air University

in partial fulfillment of the
Requirements for the Degree of
Master of Science

by

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Robert E./Bolinger/ B.S.

Captain

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Preface

This thesis is a study of the first-line supervisory position. It is hoped that the discussion of the first-line supervisory position, and development of the alternatives presented in this thesis contributes to the readers understanding of supervision.

Many people contributed to the success of this thesis. Their interest, assistance, and cooperation were invaluable in the successful completion of this thesis. I am indebted to them all. My appreciation is extended to Mr. John Jasniewski, Director of Training of the Sullair Corporation for his time and efforts in granting me an interview and in answering my many questions.

The efforts of two people deserve special acknowledgement. In particular, a special word of thanks is extended to Dr. Raymond H. Klug, my thesis advisor, who contributed immeasurably to the success of this research. Were it not for the guidance, insight, and assistance he provided, this thesis could not have been successfully completed. Also a special word of thanks is extended to Major Edward J. Dunne for the suggestions he offered as second reader, and for his promptness in reading and returning drafts.

Finally, my thanks, appreciation, and love goes to my wife Linda, for her understanding, patience, and prayers. I am deeply indebted to her for the many hours she worked in typing all the draft and final manuscripts of this thesis.

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Abstract

Each year government, business, and industrial organizations spend millions of dollars on selecting and training first-line supervisors in an effort to insure that operative employees receive quality supervision. In spite of these efforts, problems in supervision persist. The fact that these problems persist suggests that characteristics of the first-line supervisory position may contribute to the problems. This thesis involves a study of the first-line supervisory position in a search for ways to improve the supervision of operative employees through changes in the work content of the first-line supervisory position.

The principal data gathering device used in this research was a review of available literature on the subject of supervision. Data gathered through the literature search were used to develop a summary description of the first-line supervisory position which is presented as a listing of functions currently performed by first-line supervisors. This listing includes 40 separate items grouped under the classifications of production, maintenance, methods improvement, quality, costs, and personnel management and human relations.

Having described the first-line supervisory position as it presently exists in many organizations, the logic of management engineering is used to develop alternative approaches to improving the supervision of operative employees.

Three alternatives are considered: elimination of first-line supervisory positions, a basic first-line supervisory position which is based on performance of a minimum set of essential supervisory functions, and a streamlined supervisory position which is a compromise between the basic supervisory position and the current first-line supervisory position. Discussion of alternatives includes a description of each alternative, a suggested redistribution of functions now performed by first-line supervisors which is required to implement alternatives, and a comparison of the benefits and problems which may be associated with the various alternatives.

Findings suggest that improvements in supervision can result from changes in the work content of the first-line supervisory position. Of the alternatives considered the streamlined supervisory position appears capable of providing the greatest net benefit.

A SEARCH FOR WAYS TO IMPROVE THE SUPERVISION OF OPERATIVE EMPLOYEES

I. Introduction

Business organizations today face a difficult future. Competition within the marketplace is increasing. Foreign competition is capturing a larger share of domestic markets while the declining value of the dollar abroad is eroding foreign markets. At the same time, inflation, increasing government restrictions, larger wage demands, and, in some industries, more frequent strikes and work stoppages are driving up the costs of doing business.

Government organizations are facing some of the same challenges. Inflated dollars buy less. Government employees must be paid more to maintain an equitable standard of living. Taxpayers are demanding more and more services from government agencies. At the same time, more taxpayers are complaining about the cost of governmental services, and the budgets of government agencies are becoming tighter.

In this environment, the continued success of any organization, either government or business, is increasingly dependent on increasing productivity and controlling costs. Quality supervision is one key to both increasing productivity and controlling costs. According to Claude S. George, "good supervision is just about the single most important factor

in the success of our American economy. The key to success for any firm is good supervision." (Ref 12:3-4).

Supervision has long been recognized as an important factor in establishing and maintaining an effective work force. Researchers have repeatedly demonstrated the influence of supervisory behavior and style on the morale, productivity, and job satisfaction of members of a work group. Thousands of volumes have been written describing these influences; however, the field of supervision continues to be the subject of much research. Further, supervision remains one of the factors most frequently measured in job satisfaction surveys (Ref 6:526).

While quality supervision is necessary at all organizational levels it is especially important at the lowest levels of the organizational hierarchy. Supervisors at the lowest level, the first-line supervisors, may have the most immediate and profound impact on the ability of an organization to carry out its mission. The first-line supervisor, who directs the efforts of the workers who actually produce the products or services provided by the organization, makes a unique contribution to organizational effectiveness. The first-line supervisor is the primary management contact of the bulk of the work force. Because the first-line supervisor is often the only day-to-day contact between an individual work group and the larger organization, the view of the organization held by group members is largely governed by the attitude and behavior of the first-line supervisor. To the

workers, the first-line supervisor is management; and, to some extent the workers view organizational plans, policies, objectives, and priorities through the eyes of the first-line supervisor. As a result, the first-line supervisor has a great deal of influence over the attitudes of the workers toward the organization. Because of their closeness to the work and potential influence over the workers, effective first-line supervisors are often considered critical organizational resources.

The job of the first-line supervisor has never been easy, but in recent years the job has become more difficult and demanding. Not too long ago the job of the first-line supervisor was relatively simple. The work supervised was uncomplicated, the supervisor was close to the workers and knew immediately when something went wrong. The supervisor had unchallenged authority, and the workers knew it. However, today things are much different. Jobs have become more specialized and complex. Workers today are more demanding. The average worker today is younger, better educated, more socially aware, more independent, and expects to gain satisfaction as well as security from a job. Furthermore, the growth of unions and of staff elements have placed more restrictions on the authority wielded by the first-line supervisor. Herbert J. Chruden describes the outcome of these changes as follows:

"The role of the supervisor has undergone many changes. At one time, he was not only knowledgeable about all activities under his purview, but he was

also able to maintain a practically unchallenged authority over those persons who were subordinate to him. With the growth of scientific management, the establishment of personnel and other staff departments, and the growth of human relations, however, the former role of the supervisor as an authority to himself gradually eroded." (Ref 5:375).

The job of the first-line supervisor has been further complicated because management demands on the supervisor have increased. One author describes this situation as follows:

"More than ever is required of him (the first-line supervisor). He has greater responsibilities, more difficult problems to solve, and has taken on more managerial tasks than ever before." (Ref 2:2).

Achieving results under these conditions of increased demands and changing environment requires continuous improvements in the quality of the supervision provided to operative employees.

This thesis, and a concurrent one by Stephen R. Quick, are the most recent efforts in a continuing study of supervision sponsored by Dr. Raymond H. Klug. This thesis, the one by Quick, and previous theses by James W. Coffman and Roger W. Longenbach, Stanley K. Burghardt and Jessie J. Lundy, George Daugavietis and Ronald S. Harris, and Robert J. Sallee are all results of a continuing examination of alternative approaches to the problem of improving the supervision of operative employees. The recurrence of problems related to supervision, when coupled with the increasing costs of manpower and the constant pressures for greater efficiency within business, industry, and government, reinforce the need for additional improvement in supervision and further study of

the seemingly unending problems involved in providing adequate supervision.

In the past, improved methods of selecting supervisors and improving the training received by supervisors have been the approaches most frequently used to improve the quality of supervision. A great deal of research has been conducted in an attempt to discover the traits, characteristics, skills and abilities, required in a successful supervisor. The findings of this research have been used by many organizations to refine the procedures used to select potential first-line supervisors and to develop supervisory training courses. As a result, many organizations no longer accept longevity or technical competence as the sole basis for promoting a worker into a supervisory position, and many organizations are insisting that supervisors receive some type of formal training in supervisory skills.

Traditionally, supervisory training programs have been one of the most popular approaches to improving the performance of first-line supervisors. Each year over one-half billion dollars is spent on programs to train or retrain supervisors (Ref 22:299). A 1973 Conference Board study of supervisory training programs within industry revealed that 89 percent of the 228 organizations surveyed conducted some form of supervisory training (Ref 32:4).

In general, efforts to improve the quality of the supervisory force have resulted in a satisfactory level of supervisory performance. The same 1973 Conference Board study

revealed that 73 percent of the managers responding were generally satisfied with the performance of first-line supervisors within their respective organizations (Ref 32:4). While these results are promising, the fact that 27 percent of the firms surveyed were not satisfied indicates that further improvements in the quality of supervision are still required.

There are many possible approaches to further improve the quality of supervision received by operative employees. Improved supervisory training programs may at first seem the most logical means of improvement. However, the results of the Conference Board study indicate otherwise.

"What seems significant is that, in a study focusing on supervisory training, over 70% of the respondents prescribe actions other than training as the most effective means for improving supervisory performance. The (supervisor's) job itself must be changed."
(Ref 32:6).

This thesis examines the position of the first-line supervisor in yet another effort to identify ways to improve the quality of supervision. The focus in this study is on the functions performed by the first-line supervisor. Supervisory roles, duties and responsibilities, and authority are examined in a search for alternative ways of changing the first-line supervisory position as a means of improving the quality of supervision.

Definitions

The following terms are important to an understanding of this study.

Operative Employee: a worker whose tasks directly result in an output of goods or services; one whose tasks do not include supervising people or the work people do (Ref 25:6).

Supervision: the art and skill of planning, directing, organizing and controlling, through direct contact, the work performance of others to accomplish stated objectives (Ref 13). Literally supervision means seeing from above. Supervision is face-to-face management in which the directing and controlling functions are emphasized.

Supervisor: an employee who is directly responsible for the work of others; a manager at any level of an organization who is accountable for the performance of one or more subordinates (Ref 25:6).

First-Line Supervisor: an employee who has formal authority and responsibility of managing the activities of one or more subordinates at the lowest level of the management hierarchy: one who supervises only operative employees (Ref 25:6). First-line supervisors exist in both office and factory. They may serve in either line or staff units. The title given to the first-line supervisor may be supervisor, foreman, superintendent, office manager or something else. Any employee whose major function is supervision, who supervises only non-managerial employees, and who does not have direct physical contact with the work is a first-line supervisor.

Background

The problems of the supervisor and various methods of improving supervision have been widely studied. In 1975 Robert J. Sallee identified over twenty graduate-level theses and research studies that had been completed by students of Air University dealing with problems associated with supervisory training (Ref 25:9).

Most recently four theses have been completed within the Department of Systems Management, Air Force Institute of Technology as part of a continuing study of the field of supervision. Two of these theses, completed in 1973, examined the problems related to supervisory training and preparing workers for their first supervisory job. In December, 1973, Coffman and Longenbach completed "A Study In Air Force Supervision - An Analysis of Problems Encountered In The Transition From Operative Employee to Supervisor." This thesis, which reported the findings of a survey of 264 Wright-Patterson AFB personnel, identified problems commonly encountered by first-time supervisors and revealed that: "First-time supervisors in the Air Force are not generally receiving supervisory training prior to assuming supervisory duties." (Ref 7:109). Also in December, Burghardt and Lundy completed "A Review and Analysis of Training Programs Used by Industry and the U.S. Air Force for the First-Time Supervisor." Burghardt and Lundy analyzed 62 supervisory training programs and identified important subject areas for a training program for first-time supervisors.

In 1975 Robert J. Sallee completed a related thesis which further developed the theme developed by Coffman and Longenbach, and Burghardt and Lundy. In completing "Development of Possible Guidelines to Assist USAF Operative Employees Transitioning to First-Time Supervisory Positions", Sallee reviewed the results of six previous studies of supervisory training programs (previous studies summarized the contents of

supervisory training programs used by 121 different organizations) and the programs of six additional corporations to determine the attitudes, knowledge, and skills required by a first-time supervisor. After establishing requirements, Sallee collected and organized training materials from selected training programs into a suggested prototype of a self-help handbook for first-time supervisors.

The fourth recent thesis was completed in December 1976. In "A Study of Characteristics In The Supervision of Scientific and Engineering Personnel", Daugavietis and Harris reported the results of interviews of 113 scientists and engineers, and 98 non-technical personnel on Wright-Patterson AFB. This research identified and reported on differences between the views of both supervisors and operative employees in scientific/engineering and non-technical fields. The findings, conclusions, and recommendations of this and the previously mentioned theses provide the background upon which this thesis is based.

This thesis and one being written concurrently by Stephen R. Quick are the most recent efforts in the study of supervision sponsored by Dr. Klug. As described in the preceding paragraphs, past theses in this series have concentrated on the problems associated with the initial supervisory assignment and ways to overcome these problems, and with identifying unique characteristics of particular supervisory assignments. This thesis and the one by Stephen R. Quick reflect an

expansion of the field of study into additional aspects of the subject of supervision.

The concurrent study by Quick involves an examination of the actions and characteristics that characterize both successful and unsuccessful supervisors. The research conducted by Quick involves examination of inputs from over 300 Air Force Officers in order to develop, from the perspective of the subordinate, a profile of effective and ineffective supervisors.

This thesis examines the first-line supervisory position in a search for new ways to improve the supervision of operative employees. The focus in this study is on the functions performed by the first-line supervisor. The functions currently performed by first-line supervisors are identified, alternative methods of accomplishing these functions are described, and alternative descriptions of the position of the first-line supervisor are developed. The problem addressed by this thesis along with the thesis objectives and research questions to be answered are presented in the following sections.

Statement of the Problem

In spite of vigorous efforts within industry and government organizations to improve the quality of supervision received by operative employees, many of the problems encountered within organizations today are still attributed to inadequate supervision. If, as some research suggests,

further training is not the sole solution to improving the performance of the supervisory function, a fresh look for other new and possibly innovative approaches to improving the quality of supervision is necessary. A need exists to more closely examine the position of the first-line supervisor to determine the feasibility of improving the quality of supervision by making changes to the duties and responsibilities associated with the position of first-line supervisor.

In short, the problem addressed by this thesis is:

In spite of continuous efforts within both industry and government organizations to improve the quality of first-line supervision, inadequate supervision remains an apparent source of worker dissatisfaction and a subject of frequent discussion in management literature. This has been verified in at least three AFIT theses and a host of contemporary literature. A need exists for further research into possible approaches to improving the quality of supervision provided to operative employees.

Objectives

The primary objective of this thesis is to examine the work of the first-line supervisor in an attempt to identify alternative supervisory roles which can improve the quality of supervision received by operative employees. This objective is supported by three secondary objectives. A complete list of research objectives follow.

Objective 1. To search for innovative ways to improve the quality of supervision provided to operative employees and to reduce the problems caused by inadequate supervision.

Objective 2. To review the current roles, duties, and responsibilities of the first-line supervisor.

Objective 3. To examine the feasibility of eliminating the position of first-line supervisor.

Objective 4. To develop alternative roles for the first-line supervisory position and evaluate the applicability of these roles.

Research Questions

This research attempts to answer the following questions.

1. Can the supervision of operative employees be improved by changing the nature of the position of the first-line supervisor? If so, what changes to the position of the first-line supervisor show the most promise of improvement?

2. What is the currently recognized role of the first-line supervisor? What are the duties and responsibilities of the first-line supervisor? What aspects of the position of the first-line supervisor can be associated with current problems?

3. In what ways can the position of the first-line supervisor be changed?

4. Can the position of first-line supervisor be eliminated? What functions presently performed by the first-line supervisor can be eliminated? Who should perform the remainder of the functions now performed by the first-line supervisor?

These questions conclude the introductory material in this thesis. The research methodology designed to answer these questions and thus achieve the research objectives is discussed in the following chapter.

II Research Methodology

The purpose of this chapter is to present the methodology by which the objectives described in Chapter I are achieved. Research was performed under the guidance and direction of Dr. Raymond H. Klug, Professor of Management, who served as advisor. Dr. Edward J. Dunne, Associate Professor of Industrial Engineering served as second reader. Research was performed in three stages: (1) Data Collection, (2) Data Treatment and Analysis, and (3) Preparation and Presentation of Findings. This chapter describes the scope and limitations of this research effort, and discusses each stage of the research methodology.

Scope and Limitations

This research involves an investigation of the work of the first-line supervisor. This research effort includes (1) a look at the functions performed by the first-line supervisor, (2) a search for alternative methods of performing these functions so that the work content of the position of the first-line supervisor can be changed, and (3) an investigation into the feasibility of eliminating first-line supervisory positions.

The position of the first-line supervisor described in this thesis is a representative one typical of those found in large organizations which are characterized by an organizational structure including both line and staff elements. Alternative roles developed as a part of this research are

based in part on the assumption that certain staff services are available. In each case where staff services are required to supplement the role of the first-line supervisor, the specific services required are identified.

Because of the time constraints of two academic quarters, data sources are limited to those which are readily available. In general, only those sources directly available through libraries in the Dayton, Ohio area are used.

Data Collection

Data used in this thesis were collected from two sources. The principal data were obtained through a literature search conducted in five libraries located in the Dayton, Ohio area: (1) the Library of the School of Engineering, (2) the Library of the School of Systems and Logistics, (3) the Wright State University Library, (4) the personal library of Dr. Raymond H. Klug, and (5) the Wright-Patterson AFB Master Reference Library of Air Force Publications.

Additional data were collected through a plant visit to the Sullair Corporation of Michigan City, Indiana. The Sullair Corporation, a manufacturer of rotary screw compressors, was selected for a plant visit because of their unconventional management practices which include a management structure devoid of first-line supervisors. The unconventional management practices employed by this corporation have been given national exposure through a feature story on the CBS news documentary program, 60 Minutes.

Literature Search. The first step in this research was a comprehensive review of management literature on the subjects of supervision, and the duties and responsibilities of the first-line supervisor. Much of this research was conducted at the Library of the AFIT School of Engineering. A card catalog search in this library yielded 25 sources on the subject of supervision which have been published since 1960. Many of these sources were available only through the Library of the AFIT School of Systems and Logistics, so part of the literature search was conducted at the School of Systems and Logistics. Those references which were used in preparing this thesis are listed in the bibliography.

In addition to the card catalog search, a number of indices at the Library of the AFIT School of Engineering were reviewed to aid in locating further information. A review of the Business Periodicals Index (July 1967-Jan 1978) under the key words "supervision of employees", "supervisor", and "foremen" yielded forty-eight sources with titles which indicated applicability in this research. Review of the Air University Periodical Index (1970-1977) yielded another six sources. Another ten sources were identified through a review of the Applied Science and Technology Index. Several excellent articles were identified from these sources. Periodicals which were used in the preparation of this thesis are listed in the bibliography.

Additional references, in the form of graduate theses and research reports were located through a review of Air

University Abstracts of Research Reports and literature searches performed by the Defense Documentation Center, Cameron Station, Alexandria, Virginia, and Defense Logistics Studies Information Exchange, US Army Logistics Management Center, Fort Lee, Virginia.

Further references and articles were obtained through the facilities of the Wright State University Library and the personal library of Dr. Raymond H. Klug. This library contains numerous recent references on the subject of supervision, as well as copies of past theses and research reports by students and faculty members, and previous research studies completed by Dr. Klug.

Current Air Force publications which were pertinent to this research were examined at the Wright-Patterson AFB Master Reference Library. Pertinent publications included AFM 25-1 USAF Management Process, AFR 85-1 Resource and Work Force Management, and AFM 66-1 Maintenance Management.

Plant Visit. Information on the experience of one company which has eliminated first-line supervisory positions was obtained through a visit to the Sullair Corporation of Michigan City, Indiana. The principal data gathering device used during this visit was a personal interview with Mr. John Jasniewski, Director of Training for Sullair. The purpose of this interview was to determine how functions which are normally accomplished by first-line supervisors are accomplished at Sullair. Questions asked by this writer

during the interview were developed from a listing of supervisory functions which was compiled by this writer during the literature search. A copy of the interview work sheet is attached to this study as Appendix A.

Data Treatment

The data treatment phase of this research is presented in three sections corresponding to the three secondary objectives and related research questions presented and described in Chapter I. These secondary objectives, which are repeated here to facilitate reader reference, are:

- (1) To review the current role, duties, and responsibilities of the first-line supervisor.
- (2) To examine the feasibility of eliminating the position of first-line supervisor.
- (3) To develop alternative roles for the first-line supervisor and to evaluate the applicability of these roles.

The following discussion addresses the data treatment supporting each of the three secondary objectives in turn.

Determining the role of the first-line supervisor involves developing a summary description of the work of the first-line supervisor. This description includes identifying the commonly accepted supervisory roles, the obligations of the first-line supervisor to the organization and the employees, and the functions performed by first-line supervisors in carrying out the responsibilities of the position of first-line supervisor. Once the summary description of the first-line supervisor is developed, characteristics of supervision peculiar to the Air Force work environment are

identified, and the impact of these characteristics on the work of the first-line supervisor is described. This data treatment is designed to satisfy the first secondary objective and to answer the related research questions. The summary description developed to attain the first secondary objective serves as the basis for the analysis required to satisfy the second and third secondary objectives.

The second objective addressed in the treatment of data is the examination of the feasibility of eliminating the first-line supervisor. Data treatment in support of this objective includes identification of some of the problems in supervision which may be related to the nature of the first-line supervisory position, presentation of alternative means of accomplishing each of the functions identified in stage one as being presently performed by first-line supervisors, and discussion of the possible advantages and disadvantages of eliminating first-line supervisory positions.

The data treatment of this stage is highly conceptual. Some of the treatment in this stage is based on the experience of the Sullair Corporation.

Development of alternative roles for the first-line supervisor involves identification of changes in the work content of the first-line supervisory position which can potentially eliminate some of the problems attributable to the functions presently performed by first-line supervisors. Each alternative is presented as a summary listing of the functions to be performed by the first-line supervisor under

that alternative. Presentation of each alternative includes a listing of the functions performed by the first-line supervisor and suggested means of accomplishing those functions no longer performed by the supervisor under that alternative.

This stage of data treatment is also highly conceptual. While the benefits and weaknesses of each alternative role are discussed, no attempt is made to experimentally test these alternatives.

Presentation of Findings

Findings of the research outlined in previous sections of this chapter are presented in the text of the following three chapters. A summary description of the current role of the first-line supervisor is presented in Chapter III. Separate sections are included on the organizational role of the first-line supervisor, the duties and responsibilities of the first-line supervisor, functions performed by the first-line supervisor, supervisory authority, and the nature of Air Force supervision.

Chapter IV presents a discussion of the feasibility of eliminating the first-line supervisor. Sections of this chapter include a discussion of the validity of the concept of elimination as an alternative to be considered, a suggested means of redistributing supervisory functions, and the benefits and problems which might arise from elimination of first-line supervisory positions.

Alternative roles for the first-line supervisor are presented in Chapter V. Sections of this chapter include a

discussion of the logic used to select alternatives, descriptions of the alternative supervisory roles, discussion of the problems and benefits associated with the alternative roles, and a comparison of the alternatives presented in this thesis.

The final chapter, Chapter VI, summarizes the text of the thesis and offers conclusions and recommendations drawn from the research effort reported in this thesis.

This concludes the discussion of the methodology used to perform this study. The next chapter, Chapter III, presents an analysis of the work of the first-line supervisor. The functions performed by the supervisor are presented in a summary description of the position of the first-line supervisor which serves as the basis for development of alternative roles for the supervisor and for discussion of the possibility of eliminating the first-line supervisor.

III. The Current Role of the First-Line Supervisor

By definition, the first-line supervisor is a member of management. Because the first-line supervisor is a manager, the work of the supervisor can be described in terms of the fundamental functions of management: planning, organizing, directing and controlling. Although the functions performed by first-line supervisors, and the skills and abilities required by first-line supervisors are similar to those of other managers, the position of the first-line supervisor differs in several respects from the position of other managers.

The position of the first-line supervisor is different because the group supervised is different (Ref 8:126). While most managers supervise other managers, only first-line supervisors are charged with supervision of non-managerial employees (Ref 28:428). As a result, the superior-subordinate relationships between first-line supervisors and workers are likely to be different from superior-subordinate relationships between managers at higher levels in the organization. Because labor-management relations in this country are often characterized as an adversary relationship, superior-subordinate relationships between first-line supervisors and workers are more inclined to be adversary relationships; and, where a union is present, the superior-subordinate relationships between first-line supervisors and workers are the only such relationships bound by the labor agreement.

The position of the first-line supervisor is also different because the first-line supervisor is the management representative closest to the actual production activities of the organization. As a result, the problems faced by first-line supervisors and the decisions made by first-line supervisors are different from those of higher level managers. The problems encountered by a first-line supervisor tend to be narrower in scope, more highly specialized, and more time sensitive than those facing higher level managers (Ref 26:16).

Finally, the position of the first-line supervisor differs from that of other managers because supervision comprises a greater portion of the work of the supervisor. To some extent all managers supervise, but supervision is a major function of the first-line supervisor. There is greater emphasis on leading, coordinating, and directing in the work of the first-line supervisor than in the work of higher level managers (Ref 9:2).

The first-line supervisor occupies a unique position in the structure of an organization; however, there is a diversity of views of the organizational role of the first-line supervisor. Different views of the organizational role of the first-line supervisor are presented in the next section.

Views of the Organizational Role of the First-Line Supervisor

Before attempting to identify the work of the first-line supervisor, it is important to understand the role of the supervisor in the organization. Understanding the organizational role of the first-line supervisor is important

because the concept of the role of the supervisor held by members of management reflects what management expects of the supervisor and reflects the responsibilities and authority granted to the supervisor. Through the years numerous views of the organizational role of the supervisor have emerged in response to changes in society, technology, and management philosophy. Five of these views, the key person in management, the supervisor in the middle, the marginal supervisor, another worker, and the behavioral specialist, have been widely accepted and are now regarded as traditional.

The Key Person in Management. The "key person in management" viewpoint is the traditional management interpretation of the organizational role of the first-line supervisor. The concept of the supervisor as key person in management recognizes the first-line supervisor as an essential element in management because of the key position of the supervisor in the chains of authority and communication connecting management and the operative employees (Ref 8:126). The supervisor, under the key person concept, exercises a great deal of power. The supervisor is expected to make decisions, control work, assign duties, maintain discipline, handle complaints and perform almost all management functions within the work group. The first-line supervisor represents management to the workers, and represents workers to management. The supervisor is recognized as the primary contact between management and the workers. As such, the first-line supervisor controls the lines of communications between

management and workers and has a significant influence on the feelings of each group toward the other. Under the key person concept the first-line supervisor is the central figure in the process of work accomplishment.

The key person concept prevails in management literature (Ref 8:126). To some extent, the key person concept is a throwback to earlier times when the first-line supervisor wielded unquestioned authority over the workers. Few supervisors today have enough authority to fully qualify as "key persons" and in reality serve a lesser role in management.

The Supervisor in the Middle. The "supervisor in the middle" concept views the first-line supervisor as the victim of opposing social pressures from management and the workers (Ref 8:126). Management expects the supervisor to meet production schedules, to control costs, to uphold organizational policies, and to keep the organization running smoothly. At the same time, the workers expect the supervisor to treat them fairly, to provide decent working conditions, to communicate their needs to management, and to protect them from unfair policies or workloads. The supervisor is caught between these opposing expectations. The supervisor cannot totally satisfy one group without alienating the other.

The "supervisor in the middle" is under tremendous pressure because the supervisor feels a sense of loyalty toward both management and the workers. Many first-line supervisors were once operative employees themselves and may feel a sense of kinship toward the workers. Further, the

supervisor knows that to maintain credibility with the workers the supervisor must be loyal to the workers. The supervisor also knows that success is achieved by satisfying management, and the supervisor also needs to be loyal to the management cause.

The view of the "supervisor in the middle" was popular in the 1940s but still applies today in many situations (Ref 8:127). This role is most prevalent when management fails to properly define the organizational role of the supervisor. The result is that the supervisor is unable to determine the right course of action to take when faced with conflicting expectations (Ref 8:127).

The Marginal Supervisor. According to the marginal supervisor viewpoint the first-line supervisor has been removed from the mainstream of action within the work group. The supervisor is seen as an organizational oddity who is neither a real manager nor a worker. Because the supervisor deals primarily with workers and not other managers, the supervisor is not accorded management status, recognition, or authority. At the same time the supervisor is excluded from union participation, and other benefits reserved for the workers.

The supervisor shares in management responsibility, but is excluded from many decisions affecting the work group (Ref 23:20). The supervisor is viewed as a key person only in implementing the decisions made by staff elements or higher management. Higher level managers and staff members

may bypass the supervisor and give guidance or direction directly to the workers. At the same time, workers are encouraged to go directly to the "expert" rather than to their supervisor when problems are encountered. As a result, the supervisor is left in the dark about much of what goes on in the organization.

Another Worker. The concept of the first-line supervisor as another worker is an extension of the "marginal supervisor" viewpoint. The first-line supervisor is viewed as an operative employee with a fancy title (Ref 8:128). The supervisor lacks authority, is denied any part in the decision making process, and exists only to execute the plans made by management. The supervisor does operative work and is denied management status. The supervisor is expected to think and act like a worker.

The Behavioral Specialist. The final traditional view of the organizational role of the first-line supervisor is the view of the supervisor as a behavioral specialist. The view places the supervisor at the level of the staff specialist (Ref 8:129). The supervisor is expected to look after the human side of the organization while the staff takes care of planning, scheduling, and technical matters. This view recognizes that the supervisor performs an important function but no more so than any of the other specialists. The supervisor is neither a "marginal supervisor" nor "key person in management" but merely another specialist.

Modern View of the Role of the First-Line Supervisor

In reality different aspects of the role of the first-line supervisor conform to each of the five traditional views. Like the "key person in management", the first-line supervisor is the primary point of contact between the workers and management, but like the "marginal supervisor" the first-line supervisor is sometimes excluded from decisions affecting the work group. Like the "supervisor in the middle" the first-line supervisor is subject to conflicting expectations. At times the first-line supervisor may perform operative work like "another worker", and few would deny the need for the supervisor to be skilled in human relations. Yet, none of the traditional views by itself adequately describes the organizational role of the first-line supervisor.

Newer, more appropriate views of the organizational role of the first-line supervisor have emerged in response to the deficiencies of the traditional views. Keith Davis likens the role of the first-line supervisor to the keystone in an arch (Ref 8:130). Rensis Likert has developed the concept of the first-line supervisor as a linking pin joining an individual work group to the larger organization (Ref 2:113). Both views recognize first-line supervisors as central figures in the relationships between the work group and the larger organization.

As a "linking pin" or "keystone" the first-line supervisor becomes the agent through which the work group is integrated into the organization. The first-line supervisor

not only serves as the point of contact between the group and the line organization, but also with staff agencies and other work groups.

The first-line supervisor in the capacity of linking pin is serving not one role, but five. The supervisor serves as the management representative to the work group, and the representative of the work group to the organization. The supervisor also fulfills the roles of co-worker to other supervisors, and of an agent of the staff agencies. Where workers are represented by a union, the supervisor also serves as a point of contact between union and management and an administrator of contract provisions.

Each of these roles imposes certain responsibilities on the first-line supervisor. Each group with which the supervisor interacts has certain expectations concerning the supervisor, and these expectations are reflected in the duties and responsibilities of the supervisor.

Supervisory Duties and Responsibilities

Few positions encompass so many duties and responsibilities as that of the first-line supervisor. Each of the relationships implied in the five supervisory roles discussed in the preceding section carries with it certain obligations. Members of each group with whom the supervisor interacts expect the supervisor to serve their interests in some way. The price the supervisor pays for acceptable relationships with these groups is the acceptance of an

obligation to at least partially fulfill the expectations of each group.

In many cases each of the five groups; higher management, the workers, other supervisors, staff agencies, and the union expect the same things from the supervisor. Sufficient differences do exist to warrant a closer look at the responsibilities of the supervisor toward each group.

Supervisory Responsibility to Higher Management. As the management representative to the work group, one of the primary duties of the first-line supervisor is to extend management down to the level of the operative employee. Within this tasking it is the responsibility of first-line supervisors to perform, within the limits prescribed by their superiors, the basic process of management within their work units. In accepting this responsibility supervisors incur an obligation to insure that the work of their units is accomplished on time and according to established standards, and to maintain a high degree of efficiency (Ref 5:357). These two general responsibilities imply a host of additional supervisory responsibilities.

First-line supervisors are responsible for knowing and understanding all aspects of organizational operations. Higher management expects supervisors to know and understand organizational goals, plans, policies, procedures, rules, and regulations, as well as the work of their units (Ref 20: 2,3). Beyond this the supervisor is responsible for communicating to the operative employees all aspects of company

operations (Ref 4:231). Further, the first-line supervisor is responsible to higher management for interpreting, implementing, and complementing management policy, for implementing management plans and programs within the work unit, and for upholding and enforcing organizational rules and regulations.

First-line supervisors are responsible to higher management for planning and scheduling the work of their units, for assigning work to individual employees, for organizing materials and equipment for maximum efficiency, for guiding, directing, and developing workers to achieve their best efforts, and for controlling the use of time, materials, and other resources to minimize cost and maximize efficiency. First-line supervisors are also responsible for coordinating the work of their unit with other work units and staff agencies.

Additionally, first-line supervisors are responsible to management for maintaining within their work unit conditions conducive to safe and efficient operations. First-line supervisors are responsible for maintaining a safe and orderly work environment, and for maintaining both morale and discipline within the work group. Finally, first-line supervisors have a responsibility to exercise management authority within their units by making production decisions, and to keep management informed about work unit performance and significant developments within the work unit.

This discussion of the responsibilities of first-line supervisors to higher management could continue further, but the responsibilities listed in the preceding paragraphs

reflect the primary responsibilities fulfilled by supervisors in their role as management representatives to the work group. First-line supervisors assume additional responsibilities in their role as the work group representative to higher management.

Supervisory Responsibility to Employees. Some authors might argue that the main responsibilities of the first-line supervisor are to the employees (Ref 4:230). With the reduction in the authority of supervisors over functional matters, motivating workers has become a larger and more important part of the job of the first-line supervisor. Responsibility to management and the employees are certainly two of the more important elements of the job of the supervisor (Ref 4:231).

Workers look to their first-line supervisor to satisfy many of their work related needs. Workers expect their supervisor to provide them with guidance and support, to keep them from getting into trouble, and to represent them to higher management. Workers depend on their supervisor to provide challenging work, recognition, and acceptable working conditions.

First-line supervisors have a responsibility to provide employees with knowledge of all aspects of company operations. This includes the responsibility to keep employees informed about organizational goals, plans, policies, rules, regulations, procedures and benefits. First-line supervisors are also responsible for providing job knowledge to the employees. It is the responsibility of the first-line supervisor to

insure that new employees are properly oriented and that all employees understand their duties and responsibilities, and the manner in which their performance will be evaluated.

First-line supervisors have a responsibility to establish and maintain good working relationships among employees. This includes the responsibility of first-line supervisors to promote cooperation and team work, and to treat employees fairly and impartially. Supervisors have a responsibility to treat employees fairly in matters of discipline, work distribution, performance appraisal, promotions, and transfers.

The responsibilities of the first-line supervisor to employees include the responsibility to represent the employees to higher management, to support the employees, and to protect them from arbitrary or indiscriminate management actions.

Additionally, first-line supervisors are responsible to employees for providing policy when not provided by higher management, for coordinating and planning work so that uncertainty is minimized, for discussing proposed changes before they take place, for maintaining a safe and clean work area, and for handling employee problems promptly and with confidentiality. Finally, first-line supervisors are responsible to employees for giving employees some voice in matters affecting their welfare.

Supervisory Responsibility to Peers. As was indicated earlier, the responsibilities of the first-line supervisor to management and the employees form the most important

elements of the job of the supervisor. Nevertheless, supervisors do have responsibilities relative to their peers; and, while these responsibilities are not as pressing as those described in the two previous sections, these responsibilities do impose additional requirements on the supervisors (Ref 4:231).

First-line supervisors have a responsibility to coordinate with their peers whenever work flows or paper work must be exchanged between supervisors. First-line supervisors also have a responsibility to communicate with other departments about common needs or problems, and to coordinate policy interpretations with other departments to assure consistency and uniformity (Ref 4:231). Additionally, first-line supervisors have a responsibility to receive and respect the opinions and authority of other supervisors, and to share knowledge and understanding with other supervisors. Finally, first-line supervisors have a responsibility to promote harmony between departments, to promote a team spirit among supervisors, and to support other supervisors as members of the same team (Ref 24: 38).

Supervisory Responsibility to Staff Departments. The responsibilities of first-line supervisors to staff are much like their responsibilities to peers because staff managers are also co-workers of the supervisors (Ref 4:231). The supervisor depends on staff departments for support, and in return should be willing to reciprocate by supporting the staff departments.

The responsibility of first-line supervisors to staff departments begins with knowing what services are available. Beyond this, supervisors have a responsibility to consult with staff managers on matters requiring special expertise, and to listen to staff managers advice on matters falling within their respective staff jurisdiction. Supervisors are also responsible to coordinate with staff managers when task requirements make it necessary and to provide information when requested by staff managers. Finally, first-line supervisors have a responsibility to comply with the procedures, methods and reporting requirements developed within staff departments and accepted by higher management (Ref 4:231).

Supervisory Responsibility to the Union. At first, the idea that a first-line supervisor has a responsibility to the union may seem strange. After all, the supervisor is a member of management, not labor. Nevertheless, if a union is present it forms a definite part of the environment of the work situation and many of the actions taken by the first-line supervisor will impact directly on union members. As a result, the first-line supervisor may be the single most important factor in creating and maintaining a pattern of cooperation between management and the union (Ref 14:333).

Wherever a union is present, first-line supervisors have an obligation to workers, union, and management to see that the labor agreement is understood, heeded, and fairly applied (Ref 4:249). Implicit in this obligation is the responsibility of the supervisor to acquire a thorough

knowledge of the provisions of the union contract and how they are to be interpreted. In addition, the supervisor has a responsibility to respect the terms of the agreement, and to maintain a cooperative atmosphere in relationships with the union (Ref 4:249). The first-line supervisor also has a responsibility to treat employees fairly even though they may be union members, and to promptly and efficiently handle worker complaints and grievances.

Finally, the supervisor has the responsibility to continue to manage the department. The obligations of the supervisor to management are not lessened by the presence of a union contract, and both union and management expect the supervisor to continue to enact the management process and make management decisions within the department.

The obligations and responsibilities of the first-line supervisor to management, employees, peers, staff departments, and unions define both the scope and the nature of the work of the supervisor. To some extent the responsibilities of the first-line supervisor determine both the substance and style of the first-line supervisory position. That is, the responsibilities assumed by first-line supervisors determine not only what they do, but how they do it. The functions performed by supervisors to fulfill their responsibilities are discussed in the next section.

Supervisory Functions

Supervisory functions are the actions which first-line supervisors regularly perform in discharging their responsibilities.

These functions are a direct outgrowth of the responsibility of the supervisor. Hence, responsibility is received as an obligation to perform duties which when aggregated together normally are called functions.

Because of the many responsibilities of the first-line supervisor, the supervisor is required to regularly participate in many activities. Numerous authors have developed imposing lists of the supervisory functions. Table I presents one such list based on the work of Dale S. Beach (Ref 1: 529-530). This list was selected for use in this thesis because of the convenient grouping of related activities. The classification of individual activities under the umbrellas of production, maintenance, methods improvement, quality, and personnel management and human relations provides a convenient means of grouping related activities for discussion in later chapters.

This writer recognizes that no list of supervisory functions can be complete. In reading Table I the reader may be reminded of supervisory functions that are not listed, however, this writer feels that the important activities of the first-line supervisor are listed, and that any unlisted functions could be listed conveniently under the major classifications used in Table I.

Further, this writer recognizes the inherent weakness in trying to reduce the work of all first-line supervisors into a single summary applicable to all. No two supervisors perform the same activities. Differences in the size of the

Table I
Functions of the First-Line Supervisor

Production

- Plan utilization of tools and equipment
- Schedule work flow through department
- Assign employees to operations or jobs
- Requisition materials, supplies, tools, and equipment
- Expedite the flow of materials and supplies
- Check progress of employees
- Help employees clear production problems
- Maintain records on production
- Render reports when required
- Cooperate with other supervisors

Maintenance

- Inspect tools and equipment for proper operation
- Order repairs to equipment
- Maintain a clean and orderly working environment
- Eliminate hazards and insure safe working practices

Methods Improvement

- Devise new and improved work methods
- Cooperate with staff groups in installing and devising better methods and procedures

Quality

- Insure that quality standards are met
- Analyze quality reports and take corrective action on defective work
- Inspect incoming materials
- Act on changes in quality standards
- Cooperate and coordinate with engineering, quality assurance, and inspection personnel

Costs

- Control and reduce costs
- Analyze budget
- Determine causes for variance from standard and budgeted costs, and take corrective action

Table I - Continued

Personnel Management and Human Relations

Request addition or reduction in number of employees as needed
Orient new employees to their environment, the requirements of the organization, and their rights and privileges
Plan training and instructions programs, select trainers or train employees
Appraise performance
Coach and correct
Counsel employees
Recommend pay increases, promotions, transfers, and other personnel actions
Enforce rules and maintain discipline
Control attendance, arrange vacation schedules
Interpret and communicate management policies and directives to subordinates
Interpret and communicate employee suggestions and criticism to higher management
Settle complaints and grievances
Settle differences among workers
Motivate subordinates: provide rewards for good performance
Develop own skills and abilities
Cooperate and coordinate with personnel department in administering the company personnel program within own department

Adapted from Beach, Dale S. Personnel: The Management of People at Work (Second Edition). New York: The MacMillan Company, 1970.

organization, the technical content of the work, the size of the work group, the number and type of staff services available, and many other factors influence the activities performed by a supervisor (Ref 26:16).

The classifications and activities included in the list if interpreted broadly are applicable to most first-line supervisors. Thus, production should not be so narrowly interpreted as to apply only to the production department of a manufacturer. The product can be automobile engines, repaired aircraft radios, processed travel vouchers, typed letters, completed sales transactions, or any other good or service. Materials and supplies include not only nuts, bolts, terminals or subassemblies, but also pencils, paper, blank forms, spare parts, sales brochures, or any other substances required by employees to perform their work. Likewise, equipment may include typewriters, adding machines, pocket calculators, lathes, drill presses, pneumatic wrenches, or even post hole diggers. When the listed activities are interpreted in this fashion this summary is equally applicable to any first-line supervisor including supervisors of office workers, production employees, maintenance personnel, sales persons, or construction workers.

The duties, responsibilities, and functions of the first-line supervisor provide only a partial description of the work of the first-line supervisor. The authority of the first-line supervisor must also be considered for the purposes of this research effort.

Supervisory Authority

Supervisory authority, the right of the supervisor to make decisions and command the actions of others, is closely related to the duties and responsibilities of the supervisor. A supervisor without authority cannot act effectively.

Haimann and Hilgert identify the granting of authority, assignment of duties, and creation of responsibility as the three essential aspects of the process of delegation through which first-line supervisors or any other employees are empowered to do their jobs (Ref 14:38-41).

It is axiomatic in the discipline of management that authority and responsibility are coequal. Authority and responsibility are inseparable. Authority without responsibility lacks purpose, and responsibility without authority has a hollow ring (Ref 29:300).

If the equality of authority and responsibility is accepted, then the extent of the authority granted to first-line supervisors establishes the limits of their responsibility (Ref 29:300). As a result, one cannot fully understand the work of the first-line supervisor without an understanding of the limits of the authority of the supervisor.

Numerous articles have been written in the last thirty years proclaiming an erosion of the authority of first-line supervisors. Certainly the authority wielded today by first-line supervisors is less extensive than in the past. Over the years many political, legal, ethical, social and economic considerations have placed limitations on the amount

and use of supervisory authority (Ref 14:37). Increasing sophistication of technology, society, and the work force have resulted in limitations on the authority of supervisors.

Management efforts to cope with this more sophisticated environment by creating specialized staff departments have resulted in further limitations to supervisory authority. Many supervisors now share their responsibility with planning staffs, personnel departments, labor relations departments, quality control staffs, industrial safety departments, accounting departments, or others.

The presence of a labor union also limits the authority of the first-line supervisor. Labor contracts often place limits on the freedom of a supervisor to take various actions, particularly with regard to employee discipline (Ref 14:37).

The limits of supervisory authority were explored in a survey of supervisory responsibility and authority conducted by John D. Stanley of the American Management Association. The results of this survey, which were published in 1957 by Chester E. Evans, give some useful insights into the subject of supervisory authority which are pertinent to the topic of this research effort.

The survey instrument used in the Evans study of supervisory responsibility and authority was a questionnaire which listed 109 items grouped into seven major areas as follows:

Employee Relations
Quality Control
Costs
Production Schedules
Time Control
Methods Improvement
Maintenance

(Ref 10:12).

On the questionnaire, participants in the study were asked to indicate whether or not they felt that first-line supervisors were responsible for a particular item. If participants felt supervisors were responsible for a particular item, they were then asked to indicate which of five levels of authority they felt were most appropriate. Levels of authority used in the questionnaire are as follows:

1. Authority to act with no prior notice, approval, nor reporting required
2. Authority to act with reporting required, but no prior notice or approval
3. Authority to act only with prior notice
4. Authority to act with prior approval
5. Authority to act with staff advice (Ref 10:15).

In all, 187 industrial first-line supervisors and 53 higher managers participated in the survey (Ref 10:12).

The results of the survey indicate that in the areas of production and maintenance first-line supervisors exercise a great deal of authority. Both supervisors and managers indicated that, while supervisors were often required to operate under a production schedule established by someone else, supervisors were granted full authority in the following areas: scheduling machines and labor, on following up on

problem areas, taking remedial action on production problems, assigning work and making temporary work changes, maintaining records on production matters, and expediting the flow of materials and supplies within the work center. Supervisors were also granted full authority in requisitioning supplies although they were often required to report supply requisitions. Supervisors were granted less authority in scheduling overtime which often required reporting or prior notification (Ref 10:30).

Respondents also felt that supervisors had full authority in those actions required to maintain a safe and orderly work environment. Supervisors were free to inspect equipment and facilities, to report deficiencies to the agencies responsible for correcting them, to enforce safety rules, and to remove unsafe equipment or tools from service (Ref 10:34).

The results indicated that the authority of the first-line supervisor in other areas was more limited. In the area of methods improvement, supervisors were responsible for analyzing jobs for methods improvement and developing improved methods or layouts, but could not change present ways of doing things without prior notification or approval (Ref 10:32).

Similar restrictions on the amount of authority of the supervisor occurred in the area of quality control. In the area of quality control supervisors were free to furnish information, to inspect the work of employees, and to analyze inspection reports; however, supervisors could not take remedial actions on quality matters, or reject materials received,

without reporting on the action taken. Further, supervisors could not make changes in specifications, or act on suggested process changes without prior approval by a staff element or superior (Ref 10:26).

In the area of costs supervisors were free only to assign costs to particular accounts. Budgets were established by someone other than the first-line supervisor and prior approval was required before the supervisor could exceed budget guidelines or act on variances from the budget (Ref 10:28).

In the area of personnel management and human relations the supervisor had full authority in assigning work to employees, orienting new employees, in training employees, in certifying the amount of time an employee had worked and in granting employees temporary absences from their work. Supervisors, however, could not authorize vacations or grant leaves of absence without notification or prior approval. Other matters concerning employee pay, promotions, or transfers required either prior notice to superiors or the approval of superiors (Ref 10:16-20).

Supervisors had somewhat less authority when disciplining employees or acting on grievances. Supervisors had the authority to correct employees and to give employees verbal or written warnings, but further disciplinary action required prior approval. Likewise, supervisors could accept grievances, confer with union stewards, and investigate grievances, but supervisors could not answer grievances without notifying higher management or obtaining management approval (Ref 10:20).

This discussion of supervisory authority completes the presentation of findings regarding the work of the first-line supervisor. The summary listing of the activities of the first-line supervisor presented in Table I serves as the standard for comparing alternatives presented in Chapter V. Before developing alternative roles for the first-line supervisor, the question of whether or not the job of the first-line supervisor within the Air Force is comparable to the job of the first-line supervisor within business or industry is considered.

Air Force Supervision

In a thesis completed in 1973 Robert J. Sallee identified certain conditions which are present in the Air Force environment that impact on the nature of the job of the Air Force supervisor. Sallee noted that the Air Force assignment system which calls for rotation of all military personnel approximately every four years complicates the work of Air Force supervisors because:

1. Supervisors do not act under their own long range plans. Plans developed by one supervisor must often be implemented by a successor who did not participate in developing the plan.
2. Worker training must be traded off with worker retainability.
3. Training and indoctrination of new employees is a continuous process.
4. Screening or selection of employees is seldom a supervisory prerogative.
5. Outstanding personnel can be retained only for a limited period. (Ref 25:48,49).

Sallee further notes that unique aspects of the Air Force personnel system and authority systems also impact on Air Force supervisors. Air Force supervisors have limited impact on promotion of subordinates. This is particularly the case for enlisted subordinates where promotions are based on test scores, longevity, and time in grade, as well as job performance. Further, because of an organizational structure that identifies a grade level with every position, personnel who are promoted are often transferred (Ref 25:49,50).

Finally, Sallee notes that the ties between the Air Force and the national political and legal systems also influences the work of the Air Force supervisor. Because Air Force objectives, priorities, budgets, and manning levels are based on political decisions they are subject to frequent and rapid changes. This, Sallee notes, creates within the Air Force an environment which is less stable than that surrounding many non-military organizations. Also, because Air Force regulations and policies are based on political decisions, they have the force of law. This reduces the flexibility of the Air Force supervisor (Ref 25:49).

While it is certain that the Air Force environment is somewhat different from the environment within civilian organizations, there is little evidence that the supervisory activities performed by Air Force first-line supervisors are markedly different from those performed by their civilian counterparts. Indeed, there is evidence to indicate that

the supervisory activities of Air Force supervisors are not significantly different.

Major C.R. Holloman in 1965 compared the duties and responsibilities of first-line supervisors in Air Force support functions with those of supervisors in civilian occupations and found them comparable:

...only seven of several hundred enlisted jobs involve assignments to combat aircraft. This means the vast majority of leadership situations in the Air Force take place under noncombat conditions. Thus, the vast majority of leadership situations in the Air Force are more comparable to those taking place in industry than those taking place in military organizations under conditions of armed combat. Leadership in these noncombat situations can be practiced much as it is in industrial organizations.
(Ref 16:61).

For the purpose of this thesis, the model of the first-line supervisor presented in this chapter is considered to apply to Air Force supervisors as well as supervisors within business and industry.

This section concludes the description of the work of the first-line supervisor. The next chapter presents a discussion of the feasibility of eliminating first-line supervisory positions.

IV. Eliminating First-Line Supervisors

The description of the position of first-line supervisor presented in Chapter III is representative of the position currently occupied by many first-line supervisors within business. The package of duties, responsibilities, and functions which were developed and presented in Chapter III describe a position of close interaction between the supervisor and both the workers and the work accomplished by the workers.

Past research which has been reported in both AFIT theses and management literature has identified numerous problems which can be linked to the present form of the position of the first-line supervisor. The close relationship between the supervisor and the work which is inherent in the present form of the position of first-line supervisor may be the source of much inefficiency and ineffectiveness (Ref 11:22).

Defining the position of first-line supervisors so as to require supervisors to become involved directly in the actual work of their departments, may encourage narrower spans of control than may otherwise be necessary. As a result, the present form of the position of the first-line supervisor may encourage taller organizational structures than may otherwise be necessary. Thus, the present form of the position of the first-line supervisor may contribute to excessive personnel costs, less responsive organizations, and less effective lines of communications.

Further, by requiring close interaction between the supervisor and the work, the present form of the position of first-line supervisor may contribute to ineffective work groups. Supervisors may be so closely involved in the actual work of their departments that they are unable to objectively appraise the performances of their units, and may be unable to identify problem areas within their work groups. Also, the closeness to the work required by the present form of the position of first-line supervisor may cause supervisors to deal with problems in an incorrect manner. For example, a supervisor faced with substandard group performance may respond by performing operative duties to improve group output rather than by analyzing the cause of the substandard performance.

Also, by requiring close interaction between the supervisor and the work, the present form of the position of first-line supervisor may encourage counter-productive behavior on the part of the supervisor. Supervisors who are constrained by their positions to become directly involved with the actual work of their unit are encouraged by those constraints to practice close rather than general supervision. Thus, the present form of the position of first-line supervisor may contribute to the very forms of supervisory behavior which repeated studies have identified as objectionable.

It appears, therefore, that changing the requirements of the position of first-line supervisor may be a promising

means of coping with some of the problems which commonly hamper organizational efforts. The remainder of the presentation of the findings of this research involves the application of the logic of management engineering to the position of the first-line supervisor in order to develop alternatives to the position presently held by first-line supervisors.

In the field of management engineering, three approaches toward improvement are considered. The highest form of improvement is elimination. Conditions that no longer exist cause no more problems. The second form of improvement is combination or rearrangement. In this approach various components of a situation are combined or rearranged to reduce the troublesome aspects of the individual components. The third form of improvement is to simplify or streamline the present components of a situation (Ref 18 also Ref 29:247).

All three forms of improvement are considered in this research. The possibility of eliminating the first-line supervisor is considered first, followed by the presentation of alternative descriptions of the first-line supervisory position which are developed by combining and streamlining the functions presently performed by the first-line supervisor.

Eliminating the First-Line Supervisor

Before proceeding to describe the mechanics involved in eliminating the first-line supervisor, it is appropriate to consider whether or not elimination is a rational alternative to the role presently occupied by first-line supervisors.

Numerous articles in recent years have described changes in society, the work force, and the nature of work which have contributed to the evolution of the role of the first-line supervisor to what it is today. These articles have repeatedly reported that workers today are not only better educated than in the past, but also are more highly mobile, increasingly independent, and have higher aspirations. Workers today want personal satisfaction, as well as financial rewards from their jobs. As a result, an increasing number of workers today want more autonomy in performing their jobs, and greater participation in decisions affecting their employment. These desires indicate greater willingness on the part of workers to accept responsibility for their own supervision and greater reluctance to tolerate close supervision.

That decreasing supervision is an appropriate response under such conditions is supported by the Life Cycle Theory of Leadership. According to the Life Cycle Theory, increasing worker maturity as indicated by relative independence, ability to assume responsibility, and achievement-motivation, calls for leader behavior requiring less structure and less social and emotional support (Ref 15:483). Less structure and less social and emotional support implies less direction and face-to-face interaction, hence less supervision.

Changes in the work being performed by workers today further support the notion that workers today require less supervision. To some extent jobs which assured the holder freedom from supervision have always existed. Teachers, sales

people, policemen, social workers, and others whose work is performed out of sight of their immediate superior have traditionally received little direct supervision. The recent growth of service industries has, however, created more jobs which provide greater freedom from direct supervision. Many journeyman jobs today provide the freedom from supervision once reserved for only highly skilled or professional employees.

The cumulative effect of the influences mentioned above is to indicate that not only is the average journeyman worker less willing to accept supervision, but there are more jobs that are virtually unsupervisable as well (Ref 3:7). As a result, it seems that elimination of the first-line supervisor is one plausible alternative to explore in search of improving the supervision of operative employees.

Redistribution of Supervisory Functions. While it may be possible to eliminate first-line supervisors, much of the work currently performed by first-line supervisors must still be accomplished. An analysis of the specific functions performed by a particular first-line supervisor may reveal certain functions which could be eliminated completely, however, at the level of aggregation considered in this thesis none of the functions currently performed by first-line supervisors appear to be candidates for elimination. For example, examination of the reports generated by a first-line supervisor may reveal certain reports which provide no information not already available through other sources.

These specific reports could be eliminated, but eliminating specific reports does not necessarily eliminate all reporting functions performed by the supervisor. For the purpose of testing the possibility of elimination of first-line supervisory positions, all of the functions listed in Table I are considered for reassignment.

The possible redistribution of the supervisory functions listed in Table I was accomplished by examining each of the functions and determining where within the organization each function could logically be reassigned. A discussion of one way in which redistribution can be accomplished follows.

Certain of the functions can be distributed among all workers. When this is done, individual workers become responsible for performing these functions in conjunction with their operative work. Other functions can be assigned as additional duties to a specified senior or lead worker. Still other functions can be assigned solely to staff agencies or jointly to staff agencies in conjunction with workers. The remaining functions which cannot be appropriately assigned to either workers or staff agencies are assumed by the manager who would be the immediate superior of the pre-existing first-line supervisor. The resulting distribution of supervisory functions is shown in Table II.

As presented in Table II, eliminating the first-line supervisor requires workers to assume greater responsibility for activities related to production, maintenance, methods, and quality assurance. Individual workers are expected to

Table II
Redistribution of Supervisory Functions To Eliminate
First-Line Supervisory Positions

Functions Assigned to Workers

- Requisition materials, supplies, tools, and equipment
- Render reports when required
- Inspect tools and equipment for proper operation
- Order repairs to equipment
- Insure that quality standards are met
- Inspect incoming materials
- Act on changes in quality standards
- Cooperate and coordinate with engineering, quality assurance, and inspection personnel
- Cooperate with staff groups in installing and devising better methods and procedures

Functions Assigned to Lead Worker

- Coach and correct
- Assign employees to operations and jobs
- Help employees clear production problems
- Render reports when required
- Maintain a clean and orderly working environment
- Cooperate with other lead workers
- Control attendance, arrange vacation schedules

Functions Assigned to Staff Agencies

- Plan utilization of tools and equipment
- Schedule work flow through department
- Expedite the flow of materials and supplies
- Check progress of employees
- Maintain records on production
- *Eliminate hazards and insure safe working practices
- *Devise new and improved work methods
- Analyze quality reports and take corrective action on defective work
- Determine causes for variations from standard and budgeted costs and take corrective action
- *Orient new employees to their environment, the requirements of the organization, and their rights and privileges
- *Plan training and instruction programs, select trainers or train employees

*Indicates functions requiring joint effort by staff agencies and workers

Table II - Continued

Residual Functions Assumed by Higher Management

- Control and reduce costs
- Analyze budgets
- Request addition or reduction in number of employees as needed
- Appraise performance
- Counsel employees
- Recommend pay increases, promotions, transfers, and other personnel actions
- Enforce rules and maintain discipline
- Interpret and communicate management policies and directives to subordinates
- Interpret and communicate employee suggestions and criticism to higher management
- Settle complaints and grievances
- Settle differences among workers
- Motivate subordinates: provide rewards for good performance
- Develop own skills and abilities
- Cooperate and coordinate with personnel department in administering the company personnel program within own department

*Indicates functions requiring joint effort by staff agencies and workers.

identify and requisition the materials and supplies necessary to perform their jobs and to make sure that the required tools and equipment are available and in proper working order. Further, workers are made responsible for insuring the quality of materials received from the storekeeper and the quality of the products they produce.

The redistribution of functions as shown in Table II requires designation of one worker in each work group as lead worker. This lead worker, who should be the most highly skilled and experienced worker in the group, assigns jobs to workers, coaches workers on technical aspects of jobs, corrects workers who use incorrect methods, and helps employees clear production problems. The lead worker also performs the activities required to maintain an orderly work environment.

Reporting functions performed by the supervisor are divided between the lead worker and the other members of the work group. Reports submitted by either lead worker or other workers are assumed to be limited to those necessary to provide raw data on supplies and materials consumed, hours worked, and units produced. Summary reports are assumed to be generated within staff elements.

The remainder of the supervisory functions in the areas of production, maintenance, methods improvement, and quality are more difficult to reassign. In large organizations engaged in manufacturing, construction, or maintenance, existing staff agencies can assume the remaining supervisory

functions in the areas of production, maintenance, methods, and quality. Supervisory functions relating to production planning, scheduling, expediting, and progress of production are assigned to the production control staff. Supervisory activities related to safety are assigned to a safety staff or as an additional duty to the real property maintenance staff. If such staffs exist, the supervisory functions related to methods improvement are assigned to industrial engineering, product engineering, or methods staffs. Finally, the quality control staff assumes the remainder of the supervisory functions which relate to quality control.

Smaller organizations which do not have all the staff elements mentioned in the preceding paragraph, may accomplish the same results by adding staff elements to accomplish those supervisory functions for which no corresponding staff element exists, or by creating a utility staff with specialists in each of the areas not served by the existing staff structure. Where the volume of activity does not justify creating additional staff elements, those supervisory functions which are not distributed among the workers must be divided between the lead worker and higher management.

The bulk of the supervisory functions in the areas of personnel management and human relations cannot be assigned to workers or staff agencies and, thus, revert to higher management. Personnel functions related to training and new employee orientation may be assigned to the personnel department, but the remaining functions in the areas of personnel

management and human relations do not seem to this writer to be suitable subjects for assignment to staff agencies. Thus, the manager who would be the immediate superior of the pre-existing supervisor becomes responsible for supervisory functions related to worker motivation, performance appraisal, maintenance of discipline, counseling, personnel actions, policy interpretations, and communications.

Additionally, higher management becomes responsible for settling complaints, grievances, and differences between workers. While these functions could conceivably be assigned to an individual or staff element established to serve as an impartial arbitrator or as an ombudsman of a sort, to do so would deny individual managers the opportunity to demonstrate cooperativeness and support by responding more directly to worker problems and complaints.

It should be noted that the assumption of some of the supervisory functions by higher level managers creates no new responsibility for the managers. While eliminating the first-line supervisor requires managers to become more closely involved with the operatives, additional responsibility is not created because the manager is ultimately responsible for the performance of supervisory functions even when first-line supervisors exist.

Eliminating the first-line supervisor causes a radical change in organizational relationships. Workers are required to assume greater responsibility, lead workers are required, staff services must be supplemented, and higher level managers

become more involved with operatives. As a result, elimination of first-line supervisory positions is not an option to be considered lightly.

If implemented as described in the preceding paragraphs, elimination of the first-line supervisor creates a form of functional supervision. Under this form of supervision which was first introduced by Frederick W. Taylor, supervisors within an organization possess both functional and administrative responsibilities. Individual supervisors exercise administrative control over all workers assigned to their departments, and functional control over those working within their functional specialty, regardless of the organizational unit to which the workers are assigned. Thus, for example, a supervisor who specialized in assembly techniques may oversee the work of assembly personnel throughout a manufacturing plant, as well as oversee all the employees who are administratively assigned to the department to which the supervisor is assigned (Ref 27:115-116). As it is applied here, the concept of functional supervision reflects the situation where an individual employee is under the jurisdiction of a line manager for administrative matters, the work leader for work assignments and related matters, and under the jurisdiction of different staff agencies for matters relating to scheduling, safety, product quality, and production methods.

The concept of functional supervision has often been criticized as a violation of the concept of unity of command.

This and other problems which might arise as well as the potential benefits of eliminating the supervisor are discussed in the next sections.

Benefits Derived From Eliminating First-Line Supervisors.

Potential cost reduction and increased worker satisfaction are the primary benefits to be derived from elimination of first-line supervisory positions. Eliminating first-line supervisory positions effectively reduces the height of the organizational structure by one level. The resulting reduction in the number of management positions within the organization results in a direct savings in payroll costs. Further savings result from possible reductions in expenses related to supervisory selection and training.

In addition to possible savings in personnel costs, the shortened organizational structure which results from eliminating first-line supervisory positions may result in improvements to communications and control within the organization. Lines of communications and control within the organization are shortened by the elimination of one level of the management hierarchy, and worker visibility is likewise improved. Thus, communications between higher management and workers are subject to less filtering, and lines of control are easier to identify.

The broad spans of control which result when first-line supervisory positions are eliminated may result in higher levels of worker satisfaction because workers are provided greater freedom from close supervision. While

eliminating supervisory positions forces higher level managers to become more involved in the production process, the broad span of control encourages managers to employ a supervisory style which stresses general rather than close supervision. Further, because eliminating first-line supervisors requires reassignment of some supervisory functions to workers, workers are encouraged to become more self-sufficient, and workers have more control over conditions affecting their work.

Problems Arising From Elimination of First-Line Supervisors. Benefits suggested in the preceding section do not come without cost. Eliminating first-line supervisory positions requires changes in the work performed by workers, staff members, and higher level managers. Staff agencies may require enlargement, or supplementary staff elements may be required. Additional functions assumed by higher level managers may require realignment of managerial positions or a different distribution of duties between managerial positions. Because both workers and managers are expected to perform additional functions after the supervisory positions are eliminated, wage rates may have to be increased. These increased wages and the costs of acquiring and maintaining larger staffs may greatly decrease the cost savings accrued from eliminating the positions.

Further, the broad span of control which results when supervisory positions are eliminated may result in employees

suffering from too much freedom. If eliminating first-line supervisors results in infrequent contact between workers and their immediate superior, workers may suffer from a lack of personal attention and may feel that they have been deserted by management. Such feelings would surely result in decreased productivity. Studies of scientific and professional personnel indicate that, while workers prefer general rather than close supervision, daily contact between workers and their superior is required for high productivity (Ref 21:23). This writer feels that the same phenomenon may apply to less skilled workers as well.

Additional difficulties may arise because less direct contact between workers and their immediate superiors may not provide the superiors with an adequate basis for performance appraisal or an adequate basis for making decisions regarding pay raises, transfers, or promotions. Further, employees may feel that by eliminating first-line supervisory positions, management has lessened the promotion opportunities available to employees.

Management may suffer from the opposite side of the same problem. By eliminating first-line supervisory positions, management eliminates a potentially valuable training ground for future managers.

Finally, the division of supervisory functions between higher management and staff agencies may provide a recurring source of worker frustration. As was noted earlier, division of supervisory functions between management and staff may

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result in a violation of the principle of unity of command. Unless line-staff relationships are clearly established and the responsibilities of workers to both line and staff are clearly communicated to workers, workers may feel caught in the middle and may become frustrated. The clear establishment of line-staff relationships may be difficult, and clearly communicating to workers the limits of staff jurisdiction and their responsibilities to line and staff may be even more difficult.

Beyond the problems involved in attempting to eliminate first-line supervisory positions, one larger question remains. Does management succeed in eliminating first-line supervisors when supervisory functions have been redistributed as has been suggested, or does management succeed only in creating another first-line supervisor located one level higher in the management structure? The results obtained by the Sullair Corporation cast some light on this issue.

A Plant With No Foremen

The Sullair Corporation is a manufacturer of rotary screw compressors for use in mining, construction and industrial applications. Compressors are produced in three plants located in Michigan City, Indiana.

Since its beginning some thirteen years ago the management of Sullair has been guided by the belief that "most plants are overorganized, overmanaged and too grim" (Ref 30). This belief has resulted in a management style which may be unlike that used by any other manufacturing concern in this

country. The unconventional practices employed by Sullair have resulted in the company receiving a great deal of attention. Articles about Sullair have appeared in The Wall Street Journal, People magazine, Newsweek magazine, and in the October 17, 1976 edition of the CBS television news magazine 60 Minutes.

Sullair employs a variety of practices to create a working atmosphere which is conducive to high productivity. Workers are provided with a great deal of flexibility in selecting job duties and work schedule. Workers vote in groups on their hours and most work ten hours a day, four days a week.

In addition, all workers are eligible for an impressive array of benefits. Workers receive company paid medical care, dental care, and prescription drugs. Sullair also provides a gas station on the grounds where employees may purchase gasoline for 35¢ a gallon; nickle vending machines for soda pop, candy, and snacks; a company cafeteria which serves gourmet food for less than a dollar a meal, and a full-time tennis pro who gives free lessons on the four tennis courts located on the plant grounds. Additional recreational facilities which are located on the plant grounds include squash and basketball courts, and an olympic-sized pool. Sullair has also arranged for employees to receive discounts on the purchase of items ranging from groceries to lumber and appliances (ref 31).

The employee benefit program offered by Sullair has resulted in its being compared to a country club and resulted in its being labeled "the nations foremost practitioner of corporate paternalism" by Newsweek magazine (Ref 19).

What makes Sullair of interest in this study is the fact that Sullair plants do not employ foremen or supervisors. All production employees report directly to the plant manager. To find out how supervisory functions are distributed within Sullair, this writer made a trip to Michigan City and interviewed Mr. John Jasniewski, Director of Training for Sullair.

Sullair actually has three plants in Michigan City. The smallest plant, a machining operation where compressor rotors are produced which employs approximately 50 operative employees, and the main assembly plant employing approximately 100 operative employees are co-located with Sullair corporate headquarters. The third plant which also employs approximately 100 workers is located across town. This writer visited only the main plant.

The distribution of supervisory functions within the Sullair plant is much like that illustrated in Table II. Production planning, scheduling and progress checks are accomplished by staff agencies. Plans are originated within the sales staff which passes them along to a material control staff which orders the material and components required to produce the scheduled items and releases plans to the

shop. Progress checks and production expediting are handled by a production control staff which also maintains production records.

Materials and components are warehoused at the point of use so material and supply requisitions are not necessary, but workers are responsible for obtaining the tools and equipment they need from a centrally located tool crib. Material handlers assigned to the assembly area of the plant assist workers if supply problems arise.

Units are assembled in a batch production process by small groups of three to five workers. Within the assembly plant a senior worker in each group is informally recognized as lead worker, but no formal recognition is granted. These lead workers assist workers with less experience when production problems occur. The plant manager also assists in clearing production problems, especially when work stoppages appear imminent.

Maintenance functions are largely performed by workers. The plant director of security performs safety inspections, and the plant manager becomes involved only when the standards for cleanliness are not being met.

Assembly methods for new products are developed jointly by workers and product engineers who work together closely during assembly of the production prototype. During prototype assembly, workers make the sketches or schematics needed for reference during assembly of production units. Formalized assembly methods are published by

product engineering, but publication usually lags behind the beginning of production. Furthermore, because component changes occur frequently, the published assembly methods are seldom completely accurate. Because of this, and because no effort is made to enforce any particular assembly methods, workers tend to rely on the methods they themselves develop.

Assembly workers are also largely responsible for product quality. While incoming materials and subassemblies are inspected by receiving inspectors before being placed in inventory, all in-process inspections and a final static test of each unit produced are performed by assembly workers using checklists that were developed during construction of the production prototype. A final running test of each unit is performed by a separate test group. Units which fail this final running test are repaired by the workers who assembled the unit.

With one exception, supervisory functions in the areas of personnel management and human relations are the exclusive jurisdiction of the plant manager. An orientation briefing which is presented by the training staff is the only staff service presently performed in these areas. All other personnel management and human relations functions are performed by the plant manager.

No formal training is performed on a recurring basis; however, the training staff does schedule periodic refresher courses on various techniques used during assembly, and a

formal training course in compressor assembly is under development. The bulk of employee training is performed on-the-job by fellow employees. The common practice is to have employees train their own replacements. Where this is not possible, training is usually performed by the lead worker.

Sullair has no formal procedures established for performance appraisal. An informal appraisal of each employee is conducted each year in conjunction with a salary review which is performed by the plant manager. The amount of annual increase received by an employee is determined by the plant manager based on this informal appraisal.

Likewise, Sullair has no formal procedure established to handle grievances. Sullair does, however, have a firmly established open door policy, and employees are encouraged to discuss problems with the plant manager or any other management representative.

Sullair also has no personnel department so the plant manager performs personnel functions in addition to those listed in Table I. Not only does the plant manager request additional employees; but, having received permission from the Vice President of Manufacturing, the plant manager also interviews candidates and makes the hiring decision. Similarly, the plant manager makes all decisions on promotions and transfers.

The plant manager is also responsible for enforcing rules, maintaining discipline, and controlling attendance,

but these activities seem to require little attention because informal groups within the Sullair plant tend to police themselves. The plant manager acts only when informal controls break down.

When one considers the functions performed by the plant manager at Sullair in the light of the definition of a first-line supervisor which was presented in Chapter I, the similarities are obvious. Sullair has not eliminated the first-line supervisor. Instead, the plant manager has become a first-line supervisor from a position one level higher. This writer feels that the same results would occur with any attempt to completely eliminate the first-line supervisor.

To some extent the managerial practices employed by Sullair are dependent on and applicable only to operations like Sullair. The technology employed by Sullair is not highly sophisticated, and few operations must be performed to precise standards. Further, the work force is relatively stable so work groups are not constantly upset by personnel changes, and training needs are minimal. Certainly, organizations which perform more complex tasks would require different procedures for developing methods, employee training, and quality control.

The Sullair experience does indicate that providing workers with freedom from supervision can yield rewards. Employee turnover at Sullair runs only one to two percent

per year and Sullair states that its sales and profits per worker are the highest in the compressor industry (Ref 31).

For an established organization to try to achieve the same benefits by completely eliminating first-line supervisory positions, the costs may be too great; possibly the same benefits may result from less radical alternatives to the current role of first-line supervisor. Some possible alternatives are discussed in the next chapter.

V. Alternative Descriptions Of The First-Line Supervisory Position

In the previous chapter, the possibility of eliminating first-line supervisory positions was considered as a possible means of improving the supervision of operative employees. The discussion of Chapter IV leads to the conclusion that, while elimination appears to be a feasible approach to improvement, elimination of all first-line supervisory positions may not be practical. The high costs to the organization in terms of the organizational realignments required to support elimination of all first-line supervisory positions and the likely resistance to a change of such magnitude suggest that less radical alternatives may be more practical.

This chapter presents a description and discussion of alternative ways to improve supervision which do not require elimination of first-line supervisory positions. The alternatives presented in this chapter are in effect streamlined supervisory positions obtained by a partial redistribution of the functions currently performed by first-line supervisors.

Selecting Alternative Descriptions

Selection of the alternatives presented in this chapter was guided by the logic of management engineering. In the field of management engineering complete elimination is considered the highest degree of improvement (Ref 18).

This logic suggests that if complete elimination is not possible, the greatest improvement can be achieved by the highest attainable degree of elimination. As it applies to this research, the logic of management engineering suggests that if complete elimination of first-line supervisory positions is not possible, the greatest improvement may be obtained by reducing the set of functions performed by the first-line supervisor to the point where further reduction is not possible without effectively eliminating the first-line supervisory position. Thus, the logic of management engineering suggests that the development of alternatives should begin with the identification of an irreducible set of essential supervisory functions which collectively describe the first-line supervisory position.

Essential Supervisory Functions

The notion that an irreducible set of essential supervisory functions exist is confirmed in part by the conclusions drawn from the discussion of the preceding chapter. The fact that complete elimination of first-line supervisory positions results in recognition of another individual (usually one level higher in the organization) as first-line supervisor indicates that the performance of certain of the functions currently performed by first-line supervisors serves to identify an individual as a supervisor. This concept suggests that certain essential functions which are now performed by first-line supervisors are by

nature so closely associated with the concept of supervision so as to collectively characterize the individual who performs them as a supervisor. This writer chooses to label such functions as essential supervisory functions. The identity of the essential supervisory functions follows directly from the definition of supervision.

Literally, supervision means seeing from above; therefore, the essential supervisory functions can be identified by examining each of the functions now performed by the first-line supervisor and distinguishing those which require the prolonged, face-to-face interaction implied within the meaning of supervision.

Table III lists those functions which this writer feels can appropriately be labeled as essential supervisory functions. Performance of each of the functions listed in Table III, with the exception of supervisory self-development, is to some extent dependent on the knowledge, relationships, and understanding that exists only via face-to-face interaction between the supervisor and the workers.

Several of the functions listed in Table III are clearly and directly dependent on prolonged personal interaction between subordinates and their supervisor. Performance appraisal, and recommendations to transfer or promote are certainly supervisory functions which require decisions that should be based on an understanding of the worker that comes only through direct personal contact. Counseling of employees, enforcing rules, maintaining discipline, and

Table III
Essential Supervisory Functions

- Appraise performance
- Coach and correct
- Counsel employees
- Recommend pay increases, promotions, transfers,
and other personnel actions
- Enforce rules and maintain discipline
- Interpret and communicate management policies
and directives to subordinates
- Interpret and communicate employee suggestions
to higher management
- Settle complaints and grievances
- Settle differences among workers
- Motivate subordinates: provide rewards for
good performance
- Develop own skills and abilities
- Cooperate and coordinate with personnel department
in administering the company personnel policy
within own department
- Cooperate with other supervisors
- Request addition or reduction in number of workers
as needed

motivating subordinates are likewise functions which require an understanding of the workers that can be developed only through personal interaction.

Coaching and correcting are also functions which require face-to-face contact, and for this reason both have been included in Table III. It should be noted, however, that the coaching and correcting activities of the supervisor could be restricted to reduce supervisory involvement in the technical aspects of the work performed by the workers.

The remainder of the functions listed in Table III are less clearly dependent on face-to-face contact with the workers; however, these remaining functions are best

performed by someone possessing a thorough understanding of the workers. Maintaining effective communication, fairness in dealing with complaints, and fairness in settling differences between workers are all functions which are successfully performed only when based on an understanding of the individuals involved; an understanding which comes about only through the face-to-face interaction implied within the definition of supervision. This same reasoning applies to the supervisory functions related to requesting addition or reduction in the number of employees in the work group.

There is no question that the functions listed in the preceding paragraph could be performed by someone other than the immediate supervisor; however, this writer believes that the immediate supervisor is in the best position to perform them well. For example, the number of employees required in a work group could be identified through periodic visits from staff experts, but the immediate supervisor is in the best position to monitor manpower needs on a continual basis, and to observe and assess net changes in requirements.

The set of essential supervisory functions listed in Table III serves as a lower bound on the work performed by the first-line supervisor for purposes of this study. The functions listed in Table III are all logically related through common dependence on direct and continuing supervisor-subordinate interaction. As was indicated earlier, some of the functions listed in Table III could be performed

by someone other than the first-line supervisor, but this writer can see no supporting logic for a further reduction of the scope of the work performed by the supervisor.

The first alternative considered in this chapter is a first-line supervisory position based on the performance of only the essential supervisory functions. Discussion of this alternative, which this writer chooses to call the basic supervisory position, begins in the following section.

The Basic Supervisory Position

Changing the first-line supervisory position to correspond to the position described in Table III requires a partial redistribution of the functions currently performed by the first-line supervisor. This partial redistribution can be accomplished in the manner described in Chapter IV. Those functions which are not retained by the supervisor are reassigned to the workers, staff elements, and higher management. The resulting distribution of supervisory functions is shown in Table IV.

Under the proposed redistribution shown in Table IV, workers assume greater responsibility for their own work. Individual workers are expected to identify and requisition the tools, supplies and equipment needed to perform their jobs, and are also expected to perform the inspection activities currently performed by the first-line supervisor. Under this concept, which is similar to the voluntary quality control programs practiced in some foreign countries,

individual workers become more responsible for insuring the quality of their own work.

The distribution of functions illustrated in Table IV requires designation of one worker in each work group as a lead worker who assumes technical leadership of the work group. The lead worker assigns jobs to workers, coaches and corrects workers on technical aspects of the job, controls attendance, and helps employees clear production problems.

The remainder of the functions currently performed by first-line supervisors in the areas of production, maintenance, methods improvement, and quality can be assigned to staff elements. The production control staff, if one exists, assumes the production planning, scheduling, expediting, and records maintenance functions currently performed by the first-line supervisor. Safety inspections, safety training, and related activities can be performed by a safety staff or as additional duties by some other staff element. Industrial engineering, product engineering, or methods staffs assume greater responsibility for developing and improving work methods. The quality control staff and accounting staff respectively assume analytical functions currently performed by first-line supervisors to isolate and correct problems resulting in poor quality or budget variances. Staff agencies likewise assume responsibility for performing employee orientation and training activities which are currently performed by the first-line supervisor.

Table IV
Distribution of Supervisory Functions To Obtain
The Basic Supervisory Position

Functions Assigned to Workers

- Requisition materials, supplies, tools, and equipment
- Render reports when required
- Inspect tools and equipment for proper operation
- Order repairs to equipment
- Insure that quality standards are met
- Inspect incoming materials
- Act on changes in quality standards
- Cooperate and coordinate with engineering, quality assurance, and inspection personnel
- Cooperate with staff groups in installing and devising better methods and procedures

Functions Assigned to Lead Worker

- Coach and correct
- Assign employees to operations and jobs
- Help employees clear production problems
- Render reports when required
- Maintain a clean and orderly working environment
- Cooperate with other lead workers
- Control attendance, arrange vacation schedules

Functions Assigned to Staff Agencies

- Plan utilization of tools and equipment
- Schedule work flow through department
- Expedite the flow of materials and supplies
- Check progress of employees
- Maintain records on production
- *Eliminate hazards and insure safe working practices
- *Devise new and improved work methods
- Analyze quality reports and take corrective action on defective work
- Determine causes for variations from standard and budgeted costs, and take corrective action
- *Orient new employees to their environment, the requirements of the organization, and their rights and privileges
- *Plan training and instruction programs, select trainers or train employees

*Indicates functions requiring joint efforts by staff agencies and workers.

Table IV - Continued

Functions Assumed by Higher Management

- Control and reduce costs
- Analyze budgets

Functions Retained by the First-Line Supervisor

- Appraise performance
- Coach and correct
- Counsel employees
- Recommend pay increases, promotions, transfers,
and other personnel actions
- Enforce rules and maintain discipline
- Interpret and communicate management policies
and directives to subordinates
- Interpret and communicate employee suggestions
to higher management
- Settle complaints and grievances
- Settle differences among workers
- Motivate subordinates: provide rewards for
good performance
- Develop own skills and abilities
- Cooperate and coordinate with personnel department
in administering the company personnel policy
within own department
- Cooperate with other supervisors
- Request addition or reduction in number of workers
as needed

*Indicates functions requiring joint effort by staff
agencies and workers

As was indicated in Chapter IV, the distribution of supervisory functions to staff agencies may require expansion of existing staff agencies or creation of additional staff elements. Where the volume of activity does not justify creating additional staff elements, those supervisory functions which are listed in the preceding paragraph may be divided between the lead worker and higher management.

The primary difference between the redistribution of supervisory functions illustrated in Table IV and that which is required to completely eliminate first-line supervisory positions lies in the impact of the distribution on higher management. When supervisory positions are streamlined rather than eliminated higher management need only assume the cost control and budget analysis functions presently performed by first-line supervisors. Personnel management and human relations functions which would otherwise have to be assumed by higher management in order to eliminate first-line supervisory positions are retained by the supervisor.

The partial redistribution of supervisory functions which is shown in Table IV has the effect of minimizing supervisory involvement in the production process. Because the supervisors are not expected to serve as a technical expert, or to perform any tasks which require direct intervention in the work performed by the workers, supervisors are no longer constrained by the requirements of their positions to interject themselves into the production activities

of their work group. The net result of these changes is to reduce some of the factors which may be limiting the effectiveness of present day supervisors.

The partial redistribution of supervisory functions which has been described in the preceding paragraphs can potentially result in improved relations between supervisors and workers. This and other benefits which can arise from partial redistribution of supervisory functions are discussed in the next section.

Benefits of the Basic Supervisory Position. The primary benefit arising from the partial redistribution of supervisory functions presented in Table IV is the potential improvement in supervisor effectiveness. When part of the functions which are now performed by the first-line supervisor are assigned to others in the organization the time the supervisor would ordinarily spend performing the re-assigned functions is available for other possibly more rewarding purposes.

The time made available by partial redistribution of supervisory functions could be put to better use to enable the first-line supervisor to better support the workers. Supervisors could use the additional time to get to know workers better, gain a better understanding of sources of worker frustration, help workers solve problems, promote teamwork, or to perform other activities which help to create a better working environment.

Additional time made available by a partial redistribution of supervisory functions might enable first-line supervisors to supervise a larger number of workers. Thus, a partial redistribution of supervisory functions could result in a reduction in the number of first-line supervisors required by an organization.

Time made available by a partial redistribution of supervisory functions might be used for additional supervisory development activities. Thus, streamlining the work of the first-line supervisor might ultimately enable supervisors to become more highly skilled as well as more effective.

Finally, the additional time made available to first-line supervisors by a partial redistribution of supervisory functions could enable first-line supervisors to be of greater service to their supervisors. Because of having more time available, first-line supervisors could possibly assume some of the functions now performed by their supervisors who could assume some of the functions performed by even higher levels of supervisors. The net result could be an organization with fewer first-line supervisors and fewer middle managers as well. Thus, the ultimate result of an effort to streamline the work of the first-line supervisor might be a more streamlined overall organization.

By enabling first-line supervisors to assume additional management functions, partial redistribution of supervisory functions can also result in increased upward visibility throughout the organization. Because partial redistribution

could result in workers, first-line supervisors, and higher level managers each assuming functions previously performed by their supervisors, employees at every level of the organization could gain a better understanding of the problems facing their supervisor.

Partial redistribution of supervisory functions could result in more effective use of staff services. The assignment of supervisory activities in functional areas to the appropriate staff agency could result in a higher degree of specialization and better utilization of staff expertise.

Partial redistribution of supervisory functions may also result in more satisfied and more productive workers. By effectively reducing the jurisdiction of the supervisor over production matters and minimizing the involvement of the supervisor in the production process, a partial redistribution of supervisory functions can result in greater freedom from close supervision. Further, because workers are required to assume some of the functions previously performed by their supervisors, workers are made more self-sufficient, and have more influence over their own work. As a result, workers may become more responsible and may exercise greater initiative.

The benefits which may be gained by a partial redistribution of supervisory functions are to some extent offset by the problems which may be introduced when the supervisory position is streamlined. Problems which may arise from the basic supervisory position are described in the following section.

Problems Arising From the Basic Supervisory Position.

Benefits suggested in the preceding section do not come without cost. Partial redistribution of supervisory functions causes an increase in the workload of both workers and staff agencies. Staff agencies may require enlargement, or supplementary staff elements may be required. Because workers are expected to perform additional functions, wage rates may have to be increased. Lead workers must be identified and compensated accordingly. These increases in wages and the costs of providing staff services may greatly reduce any cost savings which might accrue from streamlining first-line supervisory positions.

Further, because the first-line supervisor whose position is patterned after the basic supervisory position is not directly involved in the production process, established methods of selecting and training supervisors may have to be changed. The first-line supervisor whose position is patterned after the basic supervisory position is not expected to be a technical expert; therefore, the supervisor need not be the most highly skilled and experienced individual in the work group. The first-line supervisor requires less technical ability and more ability in the field of human relations. This may require changing the relative weight of the factors which are considered in selecting potential first-line supervisors. Changing the requirements of the first-line supervisory position in this manner also

places greater importance on training programs designed to prepare potential supervisors for their first supervisory assignment.

Additional problems may arise because the partial redistribution of supervisory functions which is required to obtain the basic supervisory position also creates a form of functional supervision. As was noted in Chapter IV, division of supervisory functions between the supervisor and staff agencies may result in a violation of the principle of unity of command. Unless lines of authority and responsibility are clearly drawn, jurisdictional disputes may occur. Workers may feel caught in the middle and may become frustrated.

Finally, the partial redistribution of supervisory functions described in Table IV may result in frustration of the supervisor. A supervisor whose position is patterned after the basic supervisory position may feel isolated from the mainstream of activity. Supervisors may sense a loss of power and may feel that they have been reduced to the level of a behavioral specialist.

Comparison of the problems and benefits arising from the basic supervisory position with those which arise from elimination of first-line supervisory positions reveals some similarities and some differences. These are examined in a later section. Before doing so a second alternative supervisory position which is in essence an intelligent compromise between the basic supervisory position and the current

first-line supervisory position, is examined. This compromise position is discussed in the following section.

The Streamlined Supervisory Position

Two of the problems which arise from the basic supervisory position appear to arise because the supervisory position is too narrowly defined. Both the potential worker frustration which results from functional supervision, and the supervisor frustration from being out of the mainstream, arise because the jurisdiction of the supervisor is limited to only personnel matters. Workers receive direction directly from staff agencies, and the supervisor may, or may not, be consulted in advance.

It appears that these problems may be overcome by a compromise which combines desirable aspects of both the basic supervisory position and the current first-line supervisory position. This compromise position, which this writer chooses to call simply the streamlined supervisory position, is described in Table V.

The streamlined supervisory position is essentially a basic supervisory position to which has been added those supervisory functions required to coordinate the activities of the work group with those of the staff agencies. The staff agencies retain those functions which were redistributed to them in order to obtain the basic supervisory position, but must work through the first-line supervisor to gain access to the work group.

Table V

The Streamlined Supervisory Position

Appraise performance
Coach and correct
Counsel employees
Recommend pay increases, promotions, transfers,
and other personnel actions
Enforce rules and maintain discipline
Interpret and communicate management policies
and directives to subordinates
Interpret and communicate employee suggestions
to higher management
Settle complaints and grievances
Settle differences among workers
Motivate subordinates: provide rewards for
good performance
Develop own skills and abilities
Cooperate and coordinate with personnel department
in administering the company personnel policy
within own department
Cooperate with other supervisors
Request addition or reduction in number of workers
as needed
Cooperate with staff groups in installing and
devising better methods and procedures
Cooperate and coordinate with engineering,
quality assurance and inspection personnel

The streamlined supervisory position has the advantages of reducing the degree of functional supervision, and of placing the first-line supervisor back in the mainstream of action. The first-line supervisor again becomes the linking pin which connects the work group to the larger organization, and the supervisor is available to establish priorities on dealings with staff agencies. Furthermore, this writer believes that the relative advantages of the streamlined supervisory position can be obtained without sacrificing any of the potential benefits which may be obtained by the basic supervisory position.

The streamlined supervisory position is the last alternative considered in this thesis. This writer feels that further expansion of the supervisory position in the direction of the current supervisory position would reduce the benefits which might be gained from the streamlined supervisory position.

Comparison of Alternatives

All three of the alternatives presented in this thesis appear to offer benefits which could result in improvements in the supervision of operative employees. All three alternatives appear capable of providing freedom from close supervision and increased worker influence over conditions of their work.

In addition, all three alternatives offer some potential for shortening organization structure, either through direct elimination of first-line supervisory positions or through reduction in the number of middle management levels required above the first-line supervisory level. Thus all three alternatives offer the improvements in visibility, communications, and lines of control which can result from shortened organizational structures.

All three alternatives may result in reduced personnel costs. Elimination of first-line supervisory positions offers direct reduction in personnel cost because first-line supervisors are no longer required and because supervisor selection and training programs can be eliminated. The

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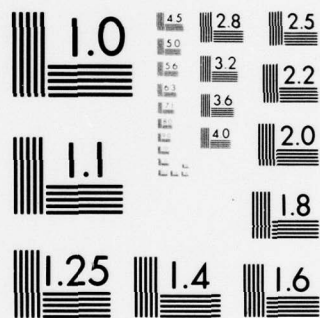
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basic supervisory position and streamlined supervisory position offer less direct reductions through possible net reduction in the number of first-line supervisors or in the number of middle managers required.

Finally, all three alternatives could result in more effective utilization of staff services. Because supervisory activities in functional areas such as safety, methods, and quality control are assigned to the appropriate staff agencies, all three alternatives may result in better utilization of staff expertise.

The three alternatives which are presented in this thesis also share some common problems. Expansion of staff elements or the creation of supplementary staff agencies may accompany all three alternatives. All three alternatives may also result in increased operative wage rates because workers are required to perform additional functions.

When the comparison of benefits and problems arising from the three alternatives is extended further the similarity between alternatives begins to disappear. Three of the problems associated with elimination of first-line supervisory positions are not as likely to occur with either the basic supervisory position or the streamlined supervisory position. Elimination of first-line supervisory positions could result in infrequent contact between workers and their next higher immediate superior. Workers may suffer from a lack of management attention and could feel that they have been deserted by management. Also, infrequent contacts

may not provide adequate basis upon which to appraise employee performance. Further, employees may feel that by eliminating first-line supervisory positions, management has lessened the promotion potential of employees. This writer does not perceive these problems under the two alternatives which retain first-line supervisory positions.

The two alternatives which retain supervisory positions offer additional advantages over elimination of first-line supervisory positions. Because first-line supervisory positions may be streamlined without a significant increase in the workload of higher management, extensive realignment of higher management positions should not be necessary. Also, any realignment which might be required would more likely result in a decrease rather than an increase in the number of middle managers in the organization. Further, the two alternatives which retain first-line supervisory positions should be subject to less resistance to change. Elimination of first-line supervisory positions represent a drastic change for workers, higher management, and for the first-line supervisors. As a result, all three groups are likely to resist elimination efforts to some extent. Both the basic supervisory position and streamlined supervisory position are less drastic changes, and should be subject to less resistance.

The final comparison between alternatives involves the degree to which each alternative may result in worker

frustration arising from functional supervision and violation of the principal of unity of command. Both elimination of first-line supervisory positions and the basic supervisory position result in forms of increased functional supervision which may lead to worker frustration. The streamlined supervisory position is less inclined to suffer from this particular hindrance.

On the basis of the comparison presented in the preceding discussion and analysis it appears that, while all three alternatives which have been presented in this thesis are feasible approaches to improving the supervision of operative employees, the streamlined supervisory position is superior to the other two. The streamlined supervisory position appears to offer nearly the same benefits as the other two alternatives with fewer attendant problems.

This concludes the presentation and discussion of the findings of this thesis. The next chapter presents a summary of the findings and a number of conclusions and recommendations which are drawn from the findings of this research.

VI Summary, Conclusions and Recommendations

Chapter VI concludes the presentation of this thesis. This chapter presents a summary of the findings reported in previous chapters, conclusions derived from those findings, and recommendations developed from this research.

Summary

Each year government, business, and industrial organizations spend millions of dollars on selecting and training first-line supervisors in an effort to insure that operative employees receive quality supervision. In spite of this vigorous effort, problems in supervision persist. In many cases workers are over-supervised, supervisors are performing operative duties, and problems causing inefficient and ineffective performance go uncorrected for lack of supervisory attention. The fact that these problems persist, in spite of vigorous efforts to improve the quality of first-line supervision, suggests that certain characteristics of the first-line supervisory position may be contributing to these and other problems.

The primary goal of this thesis is to examine the first-line supervisory position in a search for ways to improve the quality of supervision received by operative employees. In support of this goal three objectives were established:

1. To review the current role, duties, and responsibilities of the first-line supervisor.

2. To develop alternative roles for the first-line supervisor and to evaluate the applicability of these roles.
3. To examine the feasibility of eliminating the position of first-line supervisor.

The principal data gathering device used in this research was a review of available literature on the subject of supervision. Data gathered through the literature search were used to develop a summary description of the first-line supervisory position as it currently exists in many organizations. Presentation of the findings in this area includes discussions of traditional and contemporary views of the organizational role of the first-line supervisor, supervisory duties and responsibilities, functions performed by the first-line supervisor, supervisory authority, and the nature of Air Force supervision.

The summary description of the first-line supervisory position is presented as a listing of the functions currently performed by first-line supervisors. This listing includes 40 separate items grouped under the overall classifications of production, maintenance, methods improvement, quality, costs, and personnel management and human relations.

Having described the first-line supervisory position as it currently exists in many organizations, the logic of management engineering is used to develop alternative approaches to reducing some of the problems which may be associated with the first-line supervisory position. Three alternatives are considered: complete elimination of

first-line supervisory positions, a basic first-line supervisory position based on performance of a minimum essential set of supervisory functions, and a streamlined supervisory position which is a compromise between the basic supervisory position and the current first-line supervisory position.

Elimination of first-line supervisory positions can be accomplished by redistribution of the functions presently performed by the first-line supervisor. For the purposes of this study, redistribution was accomplished by examining each of the functions presented in the summary description of the current first-line supervisory position and determining where within the organization each could logically be reassigned. In the suggested redistribution, supervisory functions are reassigned to the individual workers, a lead worker, staff agencies, and to higher management.

Comparison of the advantages and disadvantages of eliminating first-line supervisory positions reveals that while elimination can result in a more streamlined overall organization and may result in increased worker job satisfaction because workers are provided greater freedom from close supervision, elimination of supervisory positions may not be the most practical approach to pursue in an effort to improve the supervision of operative employees. The extensive organizational realignments which may be required to support elimination of first-line supervisory

positions, when coupled with the possibility that elimination of first-line supervisory positions may reduce the frequency of contact between workers and management to the point where workers become frustrated from a lack of management attention and management no longer has an adequate basis upon which to appraise employee performance, suggest that alternatives which retain supervisory positions may be more practical. Two such alternatives, the basic supervisory position and the streamlined supervisory position, are considered in this thesis.

The basic supervisory position is a description of a first-line supervisory position which is based on performance of only a minimum set of essential supervisory functions. These essential supervisory functions were identified by examining each of the functions currently performed by first-line supervisors and distinguishing those which require the prolonged, face-to-face interaction implied within the definition of supervision. Fourteen functions within the general classification of personnel management and human relations were thus identified as essential supervisory functions.

The basic supervisory position is achieved through a partial redistribution of the functions presently performed by first-line supervisors. The primary difference between the redistribution of supervisory functions which is required to achieve the basic supervisory position and the redistribution which is required to completely eliminate

first-line supervisory positions is that the personnel management and human relations functions which would have to be assumed by higher management in order to eliminate first-line supervisory positions are retained by the supervisor.

Adoption of the basic supervisory position appears capable of providing many of the same benefits that may be obtained by eliminating first-line supervisory positions. At the same time, because supervisory positions are retained, fewer organizational realignments may be required and the problems arising from infrequent contacts between workers and management are not as likely to occur.

The patterning of first-line supervisory positions after the basic supervisory position may, however, lead to frustration of the supervisor. Supervisors whose positions are patterned after the basic supervisory position may feel isolated from the mainstream of activity because they are excluded from much of the interaction which may take place between workers and functional specialists in the staff agencies. This problem leads to consideration of a third alternative, the streamlined supervisory position, which is a compromise that combines desirable aspects of the basic supervisory position and the current first-line supervisory position.

The streamlined supervisory position is essentially a basic supervisory position to which has been added those functions which are required to coordinate the activities of

the work group with those of the staff agencies. This addition to the functions associated with the basic supervisory position can have the effect of bringing the supervisor back into the mainstream of action. The streamlined supervisory position is the final alternative considered in this thesis.

Comparison of the benefits and problems associated with each of the three alternatives presented in this thesis, suggests that the streamlined supervisory position is the most practical approach to pursue in attempting to improve the quality of supervision received by operative employees through changing the first-line supervisory position.

Conclusions drawn from the findings of this research are presented in the following section.

Conclusions

The following conclusions are derived from the research findings reported in previous chapters of this thesis.

1. Certain features of the first-line supervisory position may contribute to problems in supervision.

The nature of the first-line supervisory position as it presently exists in many organizations requires the supervisor to become directly involved in the work of the organization. Supervisory performance of functions requiring direct involvement in operative work may encourage close supervision and may result in performance of operative duties by supervisors.

2. Changing the first-line supervisory position can result in improvement in the quality of supervision received by operative employees.

The fact that all three of the alternatives considered in this thesis can result in greater freedom from close supervision and may result in more self-sufficient work groups supports the notion that supervision can be improved by changing the requirements of the first-line supervisory position. Further, comparison of the benefits and problems associated with the three alternatives considered in this thesis reveals that the greatest net benefit occurs from a partial redistribution of supervisory functions which minimizes the involvement of the supervisor in technical matters while retaining the supervisor as the primary point of contact within the work group.

3. Elimination of first-line supervisory positions is a feasible but impractical means of improving the supervision of operative employees.

The success of the Sullair Corporation, which has eliminated first-line supervisory positions within its production plants, indicates that elimination of supervisory positions can result in improved supervision and other benefits; however, the extensive organizational realignments which may be required for an existing organization to completely eliminate first-line supervisory positions and the problems which may accompany elimination suggest that less drastic alternatives which retain first-line supervisory positions may be more practical.

4. Elimination of first-line supervisory positions results in recognition of other individuals (usually one level higher in the management structure) as first-line supervisor.

The redistribution of supervisory functions which is required to eliminate first-line supervisory positions results in assumption of certain supervisory functions by members of higher management. Performance of the first-line supervisory functions by a member of management leads to recognition of that individual as a first-line supervisor.

5. There exists a minimum set of essential supervisory functions.

The fact that assumption of certain functions previously performed by a first-line supervisor results in a higher level manager becoming recognized as a first-line supervisor suggests that there exists a set of functions which collectively serves to identify an individual as a supervisor. These essential supervisory functions are those functions which require the prolonged face-to-face interaction implied within the definition of supervision.

The stated conclusions satisfy the objectives of this study. The final portion of this chapter presents recommendations.

Recommendations

The findings and conclusions of this thesis lead this writer to make the following recommendations.

1. It is recommended that Dr. Raymond H. Klug, Professor of Management, Department of Systems Management, sponsor additional research on the subject of supervision.

Past research sponsored by Dr. Klug has contributed immeasurably to this writers understanding of the subject of supervision. Yet, this and past theses on the subject of supervision offer but little insight when compared to that which is possible through further research by capable and imaginative persons.

2. It is recommended that a study such as this one be undertaken to identify the functions performed by first-line supervisors within a specific organization, and to explore the applicability of the alternatives presented in this thesis to specific organizational environments. A conceptual study such as this one can only point the way for further research. For any tangible benefit to occur the analysis presented must be extended to specific applications.

These recommendations conclude the presentation and discussion of this research effort. This study has been both enlightening and rewarding. This writer has gained new knowledge and deeper insight into the field of supervision as a result of this study and it is hoped that others can likewise benefit.

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Appendix A

Interview Work Sheets

I Production and Production Support

1. How are production units organized?
 - a. Are there a number of production units?
 - b. How is work divided between production units?
2. Who does production scheduling?
 - a. How are schedules communicated to employees?
 - b. How is progress against the schedule determined?
3. Who do line employees turn to when they encounter production problems?
4. Who is responsible for seeing that production workers have all the tools, equipment, and supplies they need?
5. Who determines when overtime is necessary?
 - a. Who determines who is to work overtime?

II Maintenance

1. Is anyone tasked to inspect tools and equipment for proper operations before the start of each shift?
 - a. If equipment must be repaired, who orders repairs?

Appendix A - Continued

- b. Who inspects to be sure that repaired equipment is properly operating so it can be returned to operation?
- 2. Who is responsible for housekeeping?
- 3. Who is responsible for identifying and eliminating safety hazards, and for enforcing safety regulations?

III Methods Improvements

- 1. Do assembly workers use formalized assembly procedures?
 - a. Who is responsible for developing methods or procedures?
 - b. Who insures compliance with formalized procedures?

IV Quality

- 1. Who performs quality control inspections?
 - a. Are there any formal in-process inspections?
 - b. Who performs in-process inspections?
 - c. Does your company make any attempt to trace QC rejects back to particular workers?
- 2. Who inspects incoming materials or subassemblies?

V Costs

- 1. Does your company attempt to allocate costs to individual units or production runs?

Appendix A - Continued

2. Who allocates direct labor and direct material costs to individual units?

VI Personnel Management and Human Relations

1. To whom do workers report in the chain of command?
 - a. How often do these people see the workers?
2. Who indoctrinates new workers?
3. How are training requirements identified?
 - a. Who conducts proficiency training?
4. Does your company have a formal employee performance appraisal program?
 - a. How is employee performance measured?
 - b. Who determines when employees warrant merit raises or promotions?
5. How do you keep track of who is doing what?
6. Who determines when additional employees are needed?
7. Are work hours fixed?
 - a. How is absenteeism controlled?
8. Who maintains employee personnel records?

Appendix A - Continued

9. Who disciplines employees when required?
 - a. Who counsels employees when necessary?
10. Does your company have a formal procedure for handling grievances?
 - a. Who do employees turn to for resolving grievances?
 - b. Who investigates grievances?
11. How are differences between workers settled?
12. How are company policies communicated to workers?
13. How are employee suggestions funneled to management?

VII General

1. Has your company always had no foremen?
2. Are work leaders assigned?

Vita

Robert E. Bolinger was born on 20 October 1947 in Miami, Florida. He grew up in Hialeah, Florida, graduating from Hialeah High School in 1965. He enlisted in the Air Force in 1968 and was subsequently accepted into the Airman Education and Commissioning Program. He received a Bachelor of Science degree in Electrical Engineering from the University of Missouri in 1973, and received a commission through Officers Training School in the same year. After completion of formal training, Captain Bolinger served as a communications-electronics engineer. His assignments include duty as Maintenance Control Officer with the 1913 Communications Squadron, Langley AFB, Virginia, and Communications Electronics Sensor Engineer with the Tactical Air Forces Interoperability Group (TAFIG), Langley AFB, Virginia. Captain Bolinger has completed Squadron Officer School. His decorations include the Meritorious Service Medal and the Air Force Commendation Medal. He is married to the former Linda S. Adleman of Hialeah, Florida.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This thesis involves a study of the first-line supervisory position in a search for ways to improve the supervision of operative employees through changes in the work content of the first-line supervisory position. The principal data gathering devise used in this research was a review of available literature on the subject of supervision. Data gathered through the literature search were used to develop a summary description of the first-line supervisory		

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position which is presented as a listing of functions currently performed by first-line supervisors.

Having described the first-line supervisory position as it presently exists in many organizations, the logic of management engineering is used to develop alternative approaches to improving the supervision of operative employees. Three alternatives are considered: elimination of first-line supervisory positions, a basic first-line supervisory position which is based on performance of a minimum set of essential supervisory functions, and a streamlined supervisory position which is a compromise between the basic supervisory position and the current first-line supervisory position.

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